A1600-1U 11/93

RESEARCH REPORT

SURVEY & ANALYSIS OF SALARY TRENDS
1993

PRODUCED BY
THE RESEARCH DEPARTMENT OF
THE AMERICAN FEDERATION OF TEACHERS

RESEARCH REPORT

SURVEY & ANALYSIS OF SALARY TRENDS 1993

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SEPTEMBER, 1993

Survey and Analysis of Salary Trends, 1993

Foreword

This reference document supports state federations and locals in developing salary comparisons and formulating policy. While serving as the primary vehicle for reporting the results of the American Federation of Teachers annual survey of state departments of education, several other data sources are utilized, as noted in Appendix B. Comparisons with the various tables can be developed to suit the purposes of a particular local or state federation, whether it is to consider trends, establish the position of members relative to other professionals, or make comparisons among states. Data from the AFT's annual survey of local unions is available in a separate publication titled, *AFT Local Union Teacher Salary Survey 1993*. The annually revised AFT Cost-of-Living Index now incorporates data from the 1990 Census of Housing, which became available in June, 1992.

Data include national average salaries or earnings for teachers, other school employees, government workers and professional employees over the past 30 years. In many instances, these data are available by state for recent years. This survey contains beginning salaries for teachers and other college graduates over the past 20 years. For the most part, data from the survey of state departments of education are reported as received from the states, but all data are verified against past trends. In some instances, data were confirmed by telephone. Qualifications to the data, if any, are in the notes to some tables. Many states continuously refine data, and any changes reported to the AFT Research Department are incorporated into next year's report. Updated data relating to last year's report has been incorporated into this document.

The first section of this report focuses on state comparisons. The second section highlights trends in national averages over the past two or three decades. The third section focuses on beginning teachers, with supplemental information on experienced teachers reentering the profession and teacher retirement. The fourth section presents a summary of results from AFT's newly released international teacher salary study, *How U.S. Teachers Measure Up Internationally: A Comparative Study of Teacher Pay, Training, and Conditions of Service*.

The Department of Research staff is grateful to the various locals, state agencies and state agency employees who provided the information and suggestions for this report. Yvonne Bristol of the Research Department staff helped prepare the manuscript and assisted in other aspects of this report. Helen Nemorin helped to collect data and edit the report. The international salary comparison section benefitted from the help of Tim O'Brien, co-author of the AFT's international teacher salary report.

Highlights

State Comparisons

- The average teacher salary for 1992-93 of approximately $35,104 represents a 3.2 percent increase over the previous year's average salary of $34,027.
- The 3.2 percent average teacher salary increases in both 1991-92 and 1992-93 represent the smallest increases in the 35 years of data reported in this study.
- Replicating the experience of 11 of the past 12 years, teachers experienced an increase in earnings exceeding inflation--about $56--during the 1992-93 school year.
- Connecticut had the highest average salary at $48,918, or 139 percent of the national average. South Dakota had the lowest average salary at $24,291, or just 69 percent of the national average.
- West Virginia reported the highest average salary increase--10.7 percent--for 1992-93. Pennsylvania posted a 7.2 percent gain--the second largest gain among all the states. Only three other states showed increases exceeding 5 percent.
- While only Maryland and Wyoming reported an average salary decline, ten more states reported increases of less than one percent.
- Pennsylvania, Arkansas and West Virginia reported average teacher salary increases exceeding 15 percent over the past two years.
- Since the 1980-81 school year, the average teacher salary improved in Connecticut by nearly 180 percent, in Vermont by 176 percent, and in New Hampshire by about 153 percent. Thirteen states, including Arkansas, had more than a 100 percent increase. The U.S. average finally doubled the 1980-81 average in 1992-93.
- Despite small, consistent gains against inflation over the past decade, the ratio of the average teacher salary to per capita income of 1.77 is identical to the 1981 level of 1.77, the year teachers experienced their lowest inflation-adjusted salary over the past three decades.

- An adjustment for interstate differences in the cost of living shows that Michigan, Pennsylvania, New York, and Connecticut pay teachers the most. A similar adjustment places South Dakota, North Dakota, Hawaii, Mississippi, and New Mexico on the bottom. Adjusting for the cost of living, the average Michigan teacher had the purchasing power of $43,364 compared to the South Dakota level of $26,440.

- Missouri, Illinois, New York, and Colorado showed the greatest within-state variation in teacher salaries. Each of these states has one or two large cities and a sizable rural population. In Missouri and Illinois, the highest paid five percent of teachers earn more than twice as much as the lowest paid five percent of teachers. These findings are based on a comparison of base contract salaries for teachers with a master's degree and 20 years of experience--a measure that controls for education and experience.

- While Washington, D.C. and Hawaii have only one salary schedule, North Carolina, Mississippi, West Virginia, Connecticut, Kentucky, South Carolina, and Rhode Island had the least variation in teacher salaries during the 1990-91 school year. In each of these states, 90 percent of teachers with a master's degree and 20 years of experience had earnings within 15 percent of each other.

- The average teacher paid 6.0 percent towards retirement and 36 percent towards the old age assistance portion of federal Social Security.

- State rankings by average teacher salary changed little when retirement and Social Security contributions were netted from the gross salary figures.

- Estimated expenditures per pupil in membership (from current funds) averaged $5,319 per pupil in 1992-93, ranging from a low of $2,979 in Utah to $9,081 in New Jersey, with Alaska, New York, Connecticut, and Vermont also spending more than $7,000 per pupil.

Trends Compared to Other Workers and Professions

- The 1992-93 average teacher salary of $35,104 is the highest ever average salary, but just $1,700 more than the $33,375 (in 1993 dollars) average teacher salary recorded in 1972. This increase averages about $75 per year.

- Teacher salaries barely kept pace with the growth in per capita Gross Domestic Product over the past decade. The ratio of 1.44 falls short of the 1.76 ratio in 1971 and the 1.82 ratio in 1961. In fact, the teacher pay to per capita GDP ratio was 1.44 in 1983, the year the report *A Nation at Risk* highlighted low teacher pay as a major problem in American education.

- In both 1956 and 1981, teacher salaries matched the mean annual earnings of the full-time worker in the U.S. economy, but teachers gained a 22 percent advantage by 1992.

- Teachers earned 13 percent more than the average government worker in 1992, the biggest advantage in three decades but barely above the 11 percent advantage they enjoyed in 1962, 1968 and 1969.

- The average teacher had an estimated 15.8 years of experience in 1992-93 compared to 10.7 years in 1972. After adjusting for the experience differential, the average teacher now earns $2,600 (1993 dollars) less than a teacher with 15.8 years of experience in 1972.

- While salaries in other white-collar occupations remain high compared to teachers (ranging from 96 percent more for attorneys to 12 percent more for accountants), the earnings advantage of these white-collar occupations tends to be at the lowest level since the early 1980's and is lower than in 1962. Some of the relative decline of earnings in other occupations is attributable to a broadening of data collection to smaller firms.

- In both 1991 and 1992, the salary growth of assistant professors at public institutions exceeded the average salary increase of teachers, but in 1993 assistant professor salaries grew only 1.2 percent. Both full and assistant professors experienced salary growth at the same rate as teachers since 1985.

- Since 1975-76, average teacher salaries increased 184 percent and beginning teacher salaries rose 170 percent. Principals and all hourly workers except teacher aides experienced salary growth slower than teachers. Central office secretaries and instructional aides showed more gains than teachers.

Beginning Teachers

- The average beginning teacher salary of $22,505 in 1992-93 rose 3.0 percent from the previous year compared to the average teacher salary increase of 3.2 percent.

- Seven states have starting salaries exceeding $25,000, and 13 have salaries exceeding $23,000.

- Alaska, Connecticut, and New Jersey have starting salaries in excess of $27,000, while only Idaho, North Dakota, Louisiana and Mississippi report average starting salaries below $18,000.

- Beginning offers in business for new college graduates remained high compared to beginning teachers in spring 1993 (ranging from 45 percent more for engineers to 13 percent more for sales/marketing graduates).

- The estimated 3.0 percent salary increase for beginning teachers in 1993 is greater than in any other field except liberal arts and economics/finance. Only liberal arts and business administration outpaced teaching over the most recent two-year period.

- First-year teachers comprised approximately 3.7 percent of the classroom teacher workforce in 1990-91, down from 4.2 percent in 1987-88. First-year teachers exceeded 5 percent of the workforce in Alaska, Florida, Hawaii, Idaho, Nevada, Oklahoma, South Dakota, and Texas.

- The anticipated retirement rate averaged 1.07 percent in 1990-91 and exceeded 2.0 percent only in Delaware and Iowa.

- About 86 percent of teachers in 1990-91 taught in the same school the year before. Another 5.2 percent transferred among schools within the same system, 2.4 percent switched school districts, one-half percent moved from the private school teaching force, another half percent reported coming from a non-teaching education occupation, and one percent had been doing substitute teaching. Only two percent attended college or university the previous year.

Figure 1

AVERAGE TEACHER SALARY 1992-93

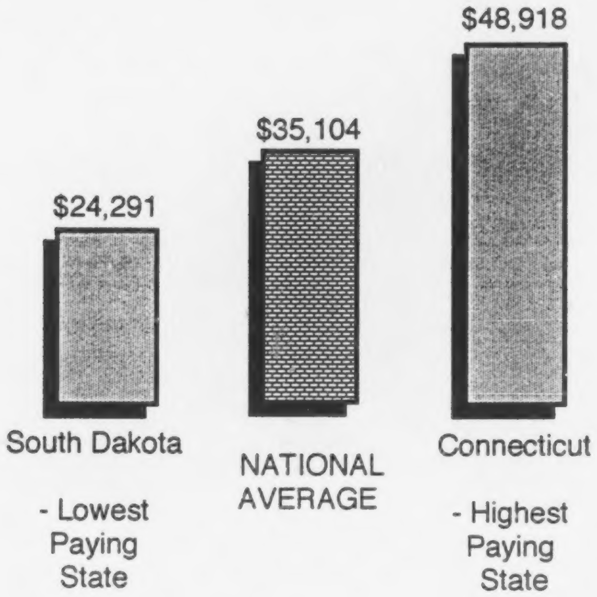

Figure 2

AVERAGE BEGINNING TEACHER SALARY 1992-93

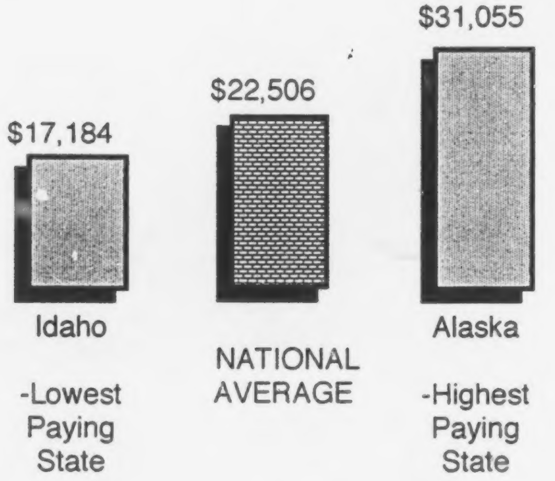

Figure 3

TEACHER SALARIES KEEP EVEN WITH INFLATION

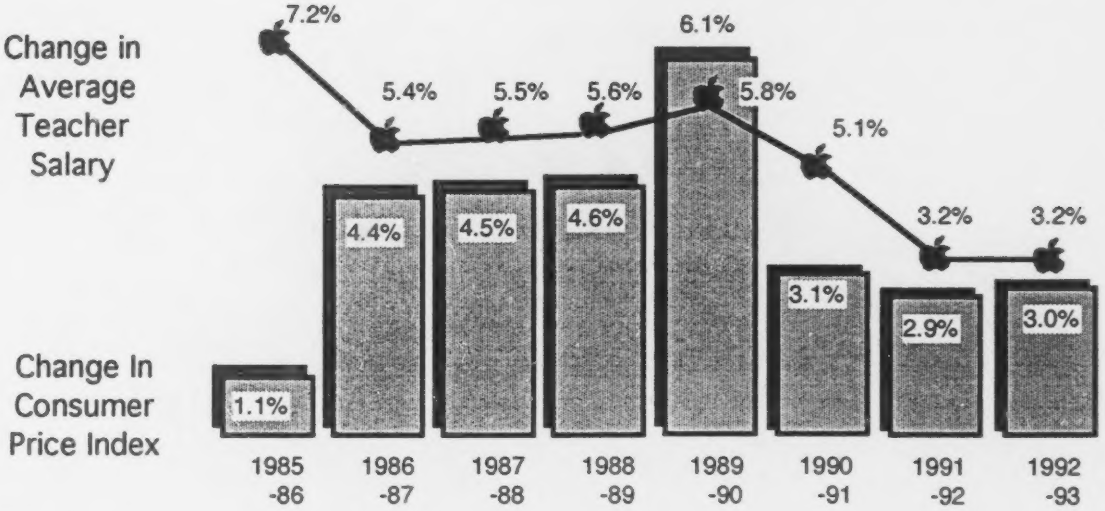

Figure 4

AVERAGE TEACHER SALARY EXCEEDS 1972 LEVELS BY ABOUT $1,700

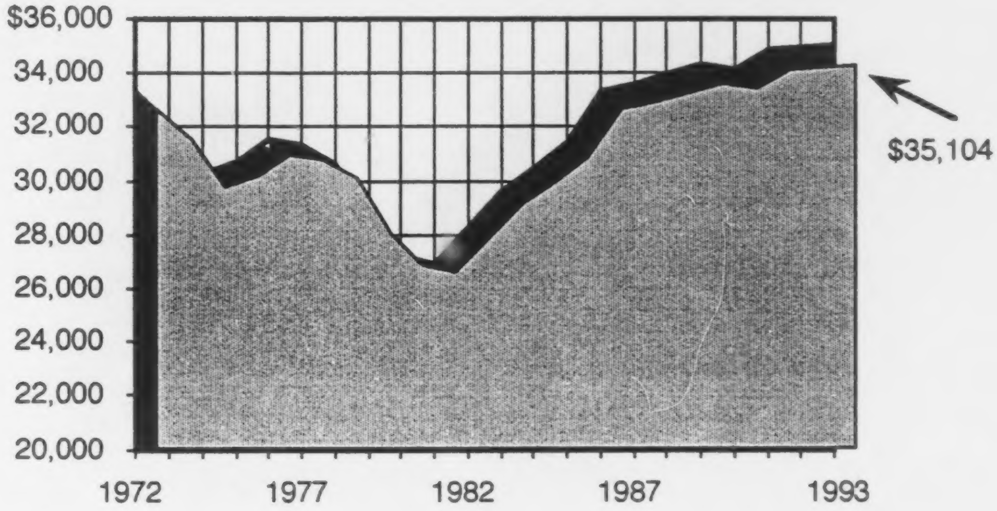

Figure 5

AVERAGE TEACHER SALARY INCREASE OF 3.2%
IS SMALLEST IN AT LEAST THREE DECADES

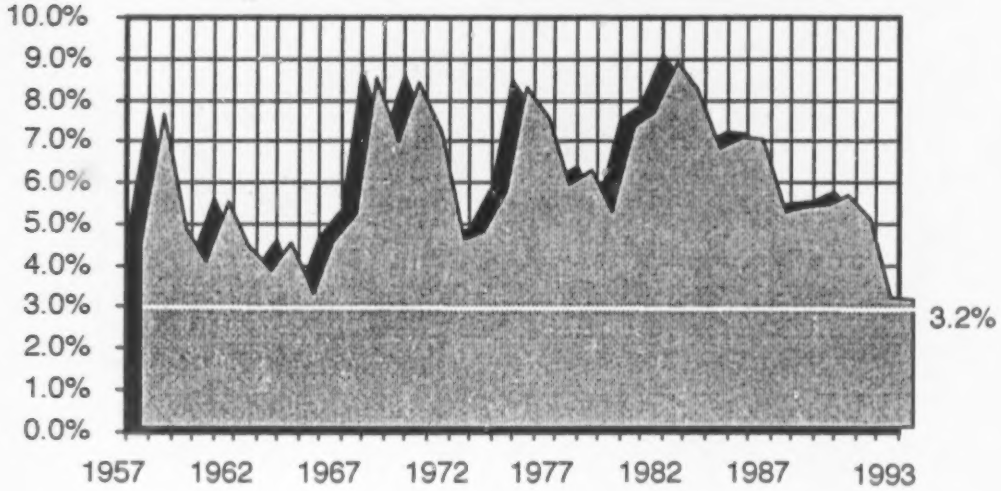

Figure 6

TEACHERS RELATIVE STANDARD OF LIVING
FALLS SHORT OF EARLIER DECADES

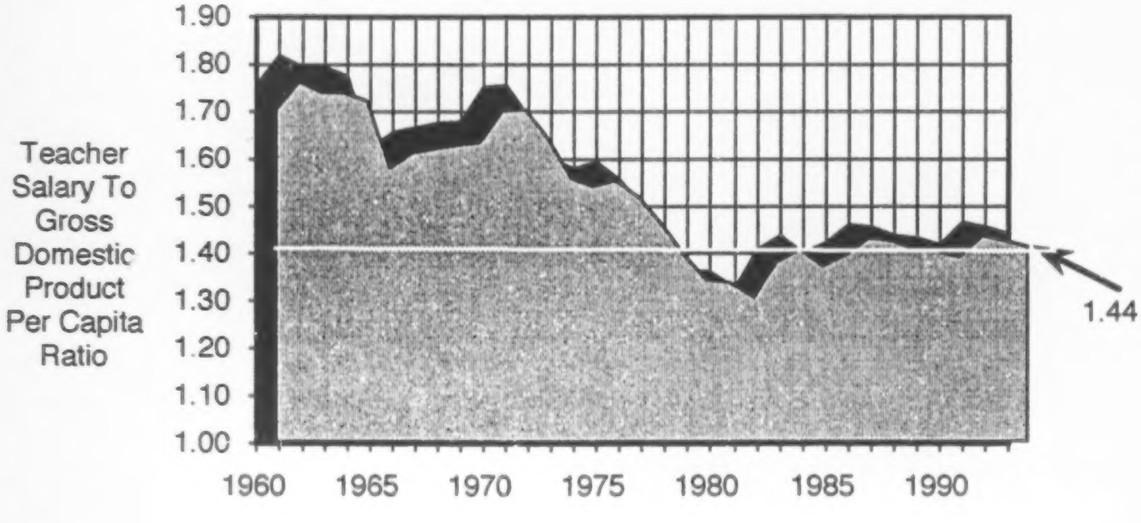

Figure 7

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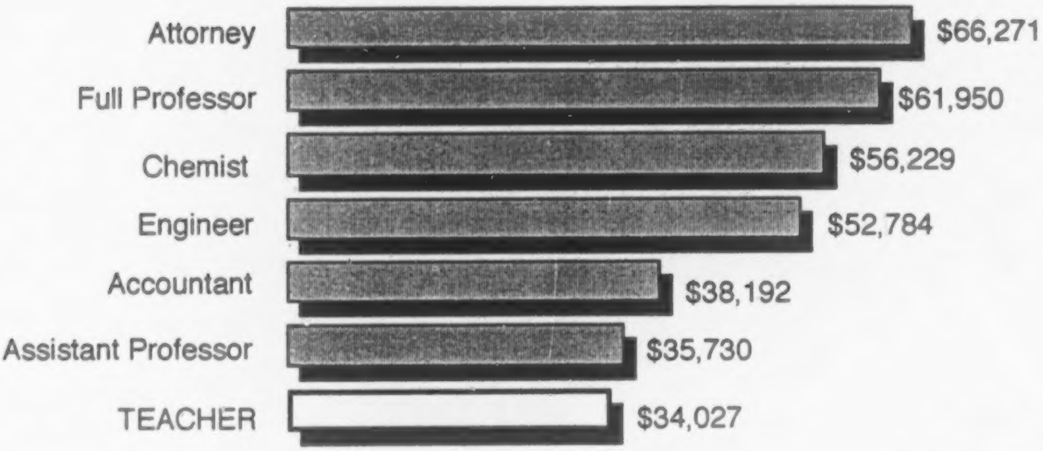

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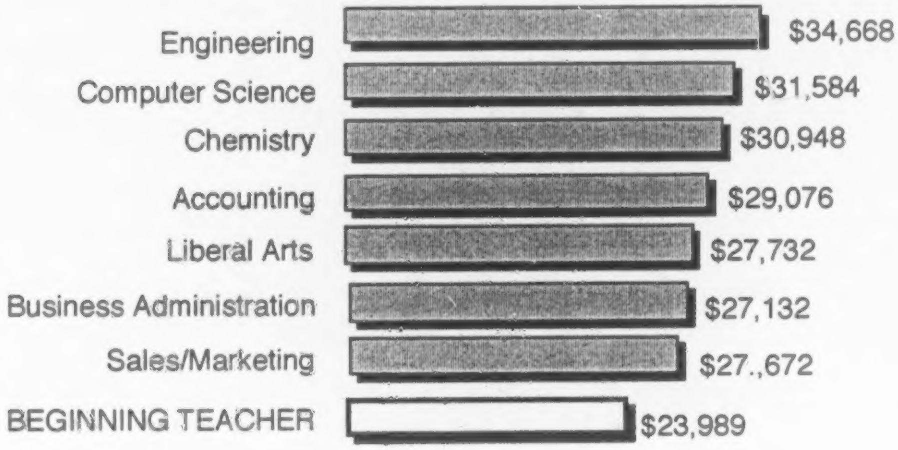
ESTIMATED ANNUAL SALARIES --SPRING 1993



Note: Expected salary of spring graduates. Beginning teacher salary is based on an estimated 3.0 percent increase for the 1993-94 school year.

Figure 9

Teacher Salaries As A Percentage of GDP
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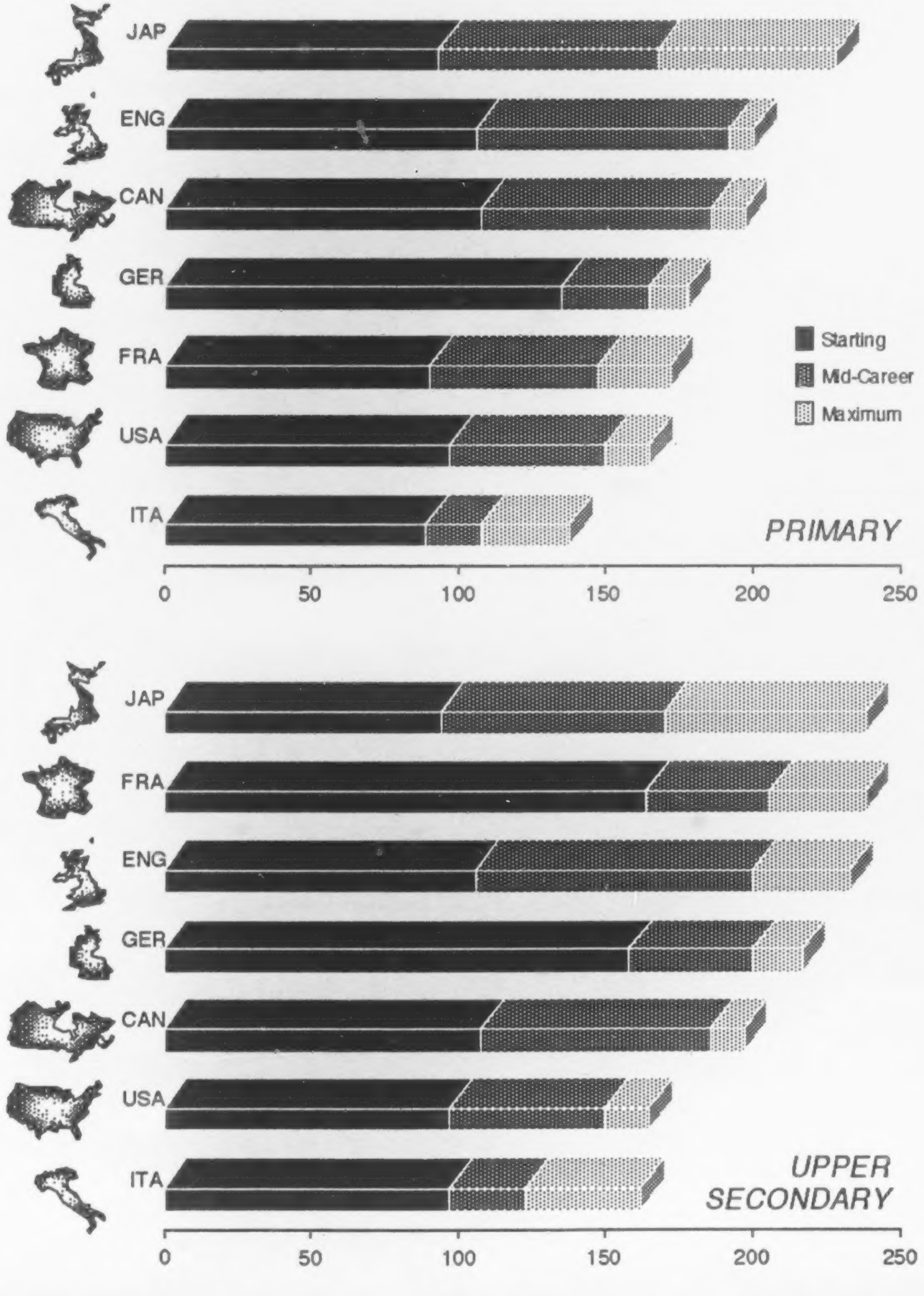

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I. State Comparisons

Developments in Teacher Salaries, 1992-93. In 1992-93, the average public elementary and secondary school teacher in the United States earned a salary of approximately $35,104, an increase of 3.2 percent over the previous year. In 1990-91, Alaska surrendered its long time ranking as the highest paying state to Connecticut, which had an average teacher salary of $48,918 by 1992-93. As shown in Table I-1, Alaska, New York, New Jersey, Michigan, Pennsylvania, and Rhode Island all had average salaries over $40,000--about 15 to 30 percent above the national average. South Dakota ranked last with an average salary of $24,291. Mississippi also had an average salary below $25,000. Beginning teachers in several states averaged more than $25,000 (See Table III-1).

Only one state experienced double-digit salary growth. West Virginia reported the highest salary increase--10.7 percent for 1992-93 (see Table I-2). Only Pennsylvania posted a gain above 7 percent. Altogether, only six states reported gains in excess of 5 percent. Arkansas moved from 49th to the 41st since 1990-91. Over the past two years, Pennsylvania, West Virginia and Arkansas reported teacher salary gains of at least 15 percent. During the same period, average salaries increased less than 2 percent in Washington, D.C., California, Maryland, Arizona, Florida, Mississippi, and Louisiana.

Gains During the 1980's. Twelve-year trends appear in Table I-3. The average salary grew by about 180 percent in Connecticut, by about 170 percent in Vermont, and by about 150 percent in New Hampshire compared to the national average of 100 percent. Average salaries improved no better than 65 percent over the dozen-year span in Louisiana (57 percent), Utah (60 percent), New Mexico (57 percent), Alaska (61 percent), and Wyoming (62 percent).

Teacher Salaries Compared to the Average Annual Earnings of Private Sector Workers. States vary considerably according to their economic condition and the cost-of-living. Table I-4 compares the average teacher salary to the average annual earnings of all workers in the private sector. The annual pay data apply to workers covered by State and Federal Unemployment Insurance programs and are compiled from reports submitted by employers for more than 93 million workers. Generally excluded from unemployment insurance are most agriculture workers on small farms, railroad workers, most domestic employees, student workers and the self-employed. This comparison serves only as an index to adjust for unique conditions within each state and to facilitate interstate comparisons. It is not presented as a standard by which to judge how much teachers should get paid relative to the average worker.

As measured by the ratio of the average teacher salary in 1992-93 to the estimated average annual earnings in the private sector in 1992, Rhode Island ranks first, with a ratio of 1.78 compared to the national average of 1.43. Several high paying states, including New York and New Jersey, fall to the middle. The District of Columbia, with the 8th highest teacher pay in the nation, ranks dead last according to the private sector pay ratio comparison. Twenty-two of the states have a ratio of between 1.40 and 1.50. While some states argue that they cannot pay teachers well because the taxpayers in the state do not get paid well, states with the lowest average teacher salaries tend to rank lowest when teacher salaries are compared to the average worker. Alabama, Utah, Oklahoma, Louisiana, New Mexico, and Mississippi rank in the bottom ten on both measures. However, the state paying teachers the least, South Dakota, ranks 18th according to the ratio.

The ranking according to the ratio of the average teacher salary to private sector employee earnings for 1981 is shown as the last column of Table I-4. The rankings of several states changed dramatically over the intervening ten years. New Mexico, North Carolina, the District of Columbia, and Utah fell at least 20 positions. Alaska, Connecticut, Wyoming, Vermont, Indiana, Kentucky, Arkansas, and New Hampshire gained at least 20 positions.

Teacher Salaries Compared to Per Capita Personal Income. Table I-5 is constructed similarly to Table I-4, except that teacher salaries are compared to per capita personal income in the state. Personal income is a combination of earnings in the workplace, minus contributions for social insurance, plus dividends, interest, rent and transfer payments. Per capita income varies among states because of cost-of-living differences, differing concentrations of poor people and demographic factors (e.g., families are large in Utah, thus driving down per capita income). Again, the comparison to personal income is only an index designated to enhance interstate comparison, not a standard by which to judge how much teachers should be paid. Because 1992-93 average teacher salaries are compared to 1992 per capita personal income, the ratio of the two measures slightly overstates how much teachers earn relative to the per capita income.

Despite substantial gains over the inflation rate during the 1980's, teacher salary growth barely kept pace with the growth in personal income. Even in 1980-81, when inflation adjusted teacher pay hit a thirty-year low, the teacher pay to per capita income ratio was 1.77, exactly the same as it is today. The national average of the teacher salary to the per capita personal income ratio is 1.77, about the same as the ratio in 1991-92 and 1990-91, but well below the ratio of 1.80 in 1988-89, 1.83 in 1987-88, and 1.85 in 1986-87. About 30 of the states had a ratio of between 1.60 and 1.90. These states cover every region of the country. Only Michigan, Rhode Island, Pennsylvania, West Virginia, and Alaska have ratios of 2.00 or better. Five of the top ten states also rank in the top ten according to average teacher salaries. However, some high paying states--New Jersey, Massachusetts, the District of Columbia, Maryland, and New Hampshire--rank below average on the teacher pay to per capita income ratio.

Several states dramatically shifted their rankings over the decade. In 1980-81, Connecticut had the 50th lowest ratio, but in 1992-93, it ranked the 18th highest. On the other hand, Utah slipped from the number one ranking to 20th, Washington fell from 8th to 21st, New Mexico shifted from 5th to 26th, North Carolina dipped to 37th from the 9th position, and Hawaii fell form 6th to 28th.

Teacher Salaries Adjusted by the AFT Cost-of-Living Index. While the greatest variation in cost-of-living occurs within a state between rural and urban locations, a cost-of-living adjustment among states makes sense when states serve as the basis of comparing earnings. Cost-of-living variations among states are considered in adjusting and re-ranking the average teacher salary displayed in Table I-6.

The interstate cost-of-living index was developed by the AFT Research Department using existing data on the cost-of-living in a majority of the nation's SMSA's to develop cost-of-living index for each state. Using regression techniques, models for each of four regions were developed to explain differences in the cost-of-living between SMSA's. The regressions coefficients were then used as weights and combined with comparable state level data to establish the state cost-of-living index. The state cost-of-living index was normalized so that 1.00 represents the national average for all states weighted by their population. Details of the index and the methodology are in, "An Interstate Cost-of-Living Index," *Educational Evaluation and Policy Analysis* (Spring, 1991). The AFT index is a revision of the index presented in editions of this report published since 1988. The index changed a little for some states because of the availability of 1990 Census data for the median house value and population density variables used in calculating the index. The 1987 version of this report contained a similar cost-of-living index developed by Walter W. McMahon and Carrol Melton ("Measuring Cost-of-Living Variation," *Industrial Relations*, Vol. 17, No. 3, 1978 p. 331). McMahon and Shao-Chung Chang completed more work on this topic in 1991 (*Geographical Cost-of-Living Differences, Interstate and Intrastate, Update 1991*, Normal, Illinois: Center for the Study of Educational Finance.)

Michigan, Pennsylvania, New York, and Connecticut rank as the highest paying states after adjusting for the cost of living. New York, Connecticut, and Rhode Island, despite having indexes at least 5 percent greater than the national average, still list in the top 10. Alaska, Massachusetts, the District of Columbia, Hawaii and New Hampshire drop substantially in the rankings. Of the 10 lowest paying states, eight ranked in the bottom 10 even after the cost-of-living adjustment. The rankings of most southern states improve only modestly when accounting for the cost-of-living variation. Of 14 southeastern states, only Virginia, West Virginia, Kentucky, and Florida rank above average after controlling for cost of living.

Teacher Salaries Adjusted for Interstate Differences in Teacher Experience. According to the 1990-91 School and Staffing Survey of the U.S. Department of Education, the average experience of teachers is 14.8 years and ranges from a low of 12.2 years in Utah to 17.6 years in the District of Columbia and 17.4 years in Michigan. By taking the difference between the average salary and the beginning salary (see Table III-1) and dividing by the average number of years of experience, an annual salary change is calculated in Table I-7. The annual change averages $851--about 2.4 percent of the national average--and ranges from $423 in Mississippi to $1,227 in Alaska. Multiplying the annual salary change by the experience differential yields a salary adjustment averaging $0, but ranging from minus $3,629 in Washington, D.C. to plus $2,396 in Alaska. After applying the salary adjustment to the average salary, Alaska, Connecticut, New York, New Jersey, Michigan, and Pennsylvania still rank as the six highest paying states. Only D.C. and Rhode Island drop out of the top ten. Of the 10 lowest paying states, nine states still rank in the bottom 10 after the adjustment for experience differences.

Salaries for Teachers With a Master's Degree and 20 Years of Experience. Table I-8A presents average salaries by state for teachers with a master's degree and 20 years of experience for the 1990-91 school year. This information just became available from the 1990-91 Schools and Staffing Survey conducted by the National Center for Educational Statistics, U.S. Department of Education. The data, which were collected from school district officials, allow an interstate comparison of career teacher salaries that controls for variations in education and experience. Teachers with a master's degree and 20 years of experience in 1990-91 earned $33,199, compared to the $31,355 average salary reported by AFT elsewhere in this report. Although the order varied, the top nine states ranked according to average salary were also the top nine states according to the master's plus 20 years. Eight states ranked in the bottom ten on both measures of teacher salaries.

Within-State Variation in Teacher Salaries. While the average teacher in Connecticut earned twice as much as the average teacher in South Dakota, teacher pay also varies considerably within state boundaries. Data from the schools and staffing survey now make it possible to describe the variation in salaries within a state for career teachers with a master's degree and 20 years of experience. Based on a ranking of districts from lowest paid to highest paid, the salaries for teachers in the 5th, 25th, 50th (equivalent to the median), 75th, and 95th percentiles are listed in Table I-8A. Only 5 percent of teachers are paid lower than teachers in the 5th percentile, while only 5 percent of teachers are paid better than teachers in the 95th percentile. In Alaska, for example, at least 5 percent of the teachers with a master's degree and 20 years of experience earn no more than $43,061; 25 percent earn no more than $46,000; 50 percent earn no more than $49,500; 75 percent earn no more than $51,623; and 5 percent earn at least $59,694. All teachers in Washington, D.C. and Hawaii are on the same salary schedule, so no variation in salaries exists.

States are ranked by several measures of within-state salary dispersion in Table I-8B. The standard deviation is a common statistical measure of variation. Generally, two-thirds of teachers will have salaries within one standard deviation of the average. New York has the highest standard deviation at $7,797, which means that two-thirds of teachers with a master's degree and 20 years have a salary of at least $7,797 below the average of $44,445, but no more than $7,797 above the average. States with higher average salaries have higher standard deviations. The coefficient of a variation--calculated by dividing the standard deviation by the average salary and expressed as a percentage--surmounts this problem by providing a unit-free measure of within-state salary variation. Missouri has the most inequality in teacher salaries with about two-thirds of teachers with a master's and 20 years of experience having salaries within 25 percent of the average. North Carolina has the least variation in teacher salaries with about two-thirds of teachers having salaries falling within 3.7 percent of the average. The average coefficient of variation is 11.8 percent.

Two other measures of salary variation are demonstrated in Table I-8B. The salary of teachers in the 75th percentile is divided by the salary of teachers in the 25th percentile to obtain the inter-quartile variance. Missouri again has the highest within-state salary variation with a ratio of 1.36. Missouri teachers in the 75th percentile earn 36 percent more than teachers in the 25th percentile. North Carolina has an inter-quartile ratio of 1.00, while West Virginia and Mississippi have ratios of 1.02 and 1.03, respectively. The average inter-quartile ratio for the 50 states is 1.15. The 95th percentile of teacher pay is divided by the 5th percentile of teacher pay to get a measure of the most extreme variations in teacher pay. Again, Missouri has the highest ratio at 2.28, indicating that the highest paid 5 percent of teachers earn at least twice as much as the lowest paid 5 percent. The ratio of Mississippi, on the other hand, was only 1.09, indicating considerable uniformity in teacher pay, even with the most extreme comparison.

An overall measure of inequality was obtained by adding the ranks of states on the three measures of salary variance. Missouri and Illinois ranked first and second on all three measures of inequality. New York, Colorado, Pennsylvania, and Michigan also had high salary variations. In addition to the single salary scale states of Hawaii and Washington, D.C., North Carolina, Mississippi, West Virginia, and Connecticut had the least within-state salary variations. Although Missouri, Illinois, New York, and Colorado have both large metropolitan areas and rural areas, no pattern emerges between salary variance and the percent of the population residing in rural areas.

Social Security and Retirement Contributions. Contributions toward federal social security and retirement vary among states and should be considered in making interstate salary comparisons. The average salary data presented in this study already includes the pension pick-up of employers for the employee share mandated in Oregon and Nevada. The Illinois data also averages in pension pick-ups where they exist. Most states allow pension pick-ups (all systems requiring employee contributions except Arkansas, Tennessee, Arizona, Vermont, Delaware, Massachusetts, and Connecticut). The value of pension pick-ups may be included in the average salary data presented elsewhere in this report. As shown in Table I-9, 10 states do not participate in the federal Social Security system (although all new teachers must participate in the Medicare portion of Social Security at a rate of about 2.5 percent of pay). In six states--Nevada, Maryland, Hawaii, Florida, Oregon, and Utah--the teacher retirement programs do not require any contributions from teachers. In Nevada and Oregon, where pension pick-ups are mandated, the employee's share (9.5 percent in Nevada and 6.0 percent in Oregon) has been added to the average salary figures reported throughout this study. This leaves only Maryland, Hawaii, Florida, and Utah--all Social Security states--as the states where teachers make no contributions to the retirement system.

An adjusted average salary figure--net of employee contributions for pension and the old-age assistance portion of Social Security (rounded to five percent)--is constructed in Table I-9. Employee contributions to pensions averaged 6.0 percent, while contributions to the old age portion of Social Security averaged 3.6 percent. Pension pick-ups were subtracted from Oregon and Nevada because they have been added as income in the average salary figures. Double-digit adjustments were calculated in 27 states with adjustments above 13 percent in New Jersey, Rhode

Island, and Oklahoma. A comparison of the salary rankings before and after the adjustment shows few changes. Maryland climbed in the rankings from tenth to sixth, and Rhode Island slipped from seventh to eleventh. Utah climbed from 44th to 38th. But the top 11 states were the same on both salary measures, and with the exception of Utah, the bottom 11 states ranked in the bottom 11 on both measures.

Expenditure Per Pupil. During 1992-93, approximately $5,319 in current funds (a figure excluding capital outlay debt service and bond and construction expenses) were spent on each enrolled pupil (measured by October 1 membership or comparable figure) in the typical state. Expenditures per pupil rose by 3.4 percent over the 1991-92 estimate of $5,144, and 8.8 percent over the 1990-91 expenditure figure of $4,890, the final revised figure reported by the National Center for Educational Statistics. In contrast, the average teacher salary had a one-year gain of 3.2 percent and a two-year gain of 6.5 percent (Table I-2).

Most of the estimates in Table I-10 and Table I-11 are based on actual data reported by states but are adjusted to reflect the definition of expenditure per pupil in membership reported by the U.S. Department of Education. Frequently, early estimates of the National Center for Educational Statistics are used. In the prior version of this AFT report, the 1989-90 U.S. average expenditure per pupil was estimated to be $4,575 while the final revised expenditure reported by the U.S. Department of Education was $4,622. Similarly, the 1990-91 AFT estimate was $4,861 while the revised actual expenditures reported by the U.S. Department of Education was $4,890.

During the 1990-91 school year, New Jersey overtook Alaska as the highest spending states. As shown in Table I-10, New Jersey spent an estimated 71 percent more than the national average, followed by Alaska, the District of Columbia, New York, and Connecticut, each spending at least 40 percent more than the national average. Utah, Mississippi, and Idaho spent under $3,500 per pupil. State rankings for per pupil expenditure and average teacher salary did not always match closely. California, for example, ranked 32nd on expenditure per pupil, but the state has the 9th highest average teacher salary. Vermont ranked 6th on spending, but only 19th according to average teacher salary.

Regional Rankings. Perhaps the most common way to improve interstate comparisons is to make comparisons within the same region, as in Table I-12. Figured this way, Connecticut paid the most in New England; New York topped the Mideast; Michigan paid the most in the Great Lakes area; and Kansas led the five other Plains states. Virginia topped the Southeast by $1,700; Arizona ranked highest in the Southwest; Colorado outpaced Wyoming by $3,000 in the Rocky Mountain region; and, excluding Alaska, California still ranked highest in the Far West with a $2,500 advantage over Nevada.

TABLE I–1

THE AVERAGE TEACHER SALARY IN 1992–93 STATE RANKINGS

Rank	State	Average Salary		Percent of U.S. Average
1	Connecticut	$48,918		139.4%
2	Alaska	46,799		133.3%
3	New York	44,999	c	128.2%
4	New Jersey	43,355		123.5%
5	Michigan	42,256	b	120.4%
6	Pennsylvania	41,515		118.3%
7	Rhode Island	40,548	b	115.5%
8	D.C.	40,228		114.6%
9	California	39,922	a	113.7%
10	Massachusetts	39,245	a	111.8%
11	Maryland	38,753		110.4%
12	Illinois	38,701	h	110.2%
13	Nevada	37,360	f	106.4%
14	Wisconsin	36,477		103.9%
15	Hawaii	36,472		103.9%
16	Delaware	36,217		103.2%
17	Oregon	35,883	f	102.2%
18	Washington	35,870	a	102.2%
19	Vermont	35,328	b	100.6%
20	Minnesota	35,093		100.0%
21	Indiana	35,068		99.9%
22	Ohio	34,100	a	97.1%
23	New Hampshire	33,931		96.7%
24	Colorado	33,541		95.5%
25	Virginia	32,896		93.7%
26	Arizona	31,352		89.3%
27	Florida	31,172		88.8%
28	Kentucky	31,115		88.6%
29	Texas	30,974	e	88.2%
30	Kansas	30,713	d	87.5%
31	Wyoming	30,317	a	86.4%
32	West Virginia	30,301		86.3%
33	Maine	30,250		86.2%
34	Iowa	30,124		85.8%
35	Missouri	29,421		83.8%
36	Tennessee	29,313		83.5%
37	South Carolina	29,151	a	83.0%
38	North Carolina	29,108	a	82.9%
39	Nebraska	28,768		82.0%
40	Georgia	28,758	g	81.9%
41	Arkansas	28,013	a	79.8%
42	Montana	27,617		78.7%
43	Alabama	27,490		78.3%
44	Idaho	27,011		76.9%
45	Utah	26,997	a	76.9%
46	New Mexico	26,463		75.4%
47	Oklahoma	26,355	a	75.1%
48	Louisiana	26,074		74.3%
49	North Dakota	25,211		71.8%
50	Mississippi	24,367		69.4%
51	South Dakota	24,291		69.2%
	U.S. Average	$35,104		100.0%
	Virgin Islands	31,326		89.2%

a=estimate or preliminary; b=AFT estimate; c=median; d=estimated to exclude fringe benefits (at 7%); e=includes incentive pay or career ladder stipends. f=includes 6% pension pick-up in Oregon, and 9.5% in Nevada; g=reflects redefinition of classroom teacher; h=includes pay for extra duties.

TABLE I-2

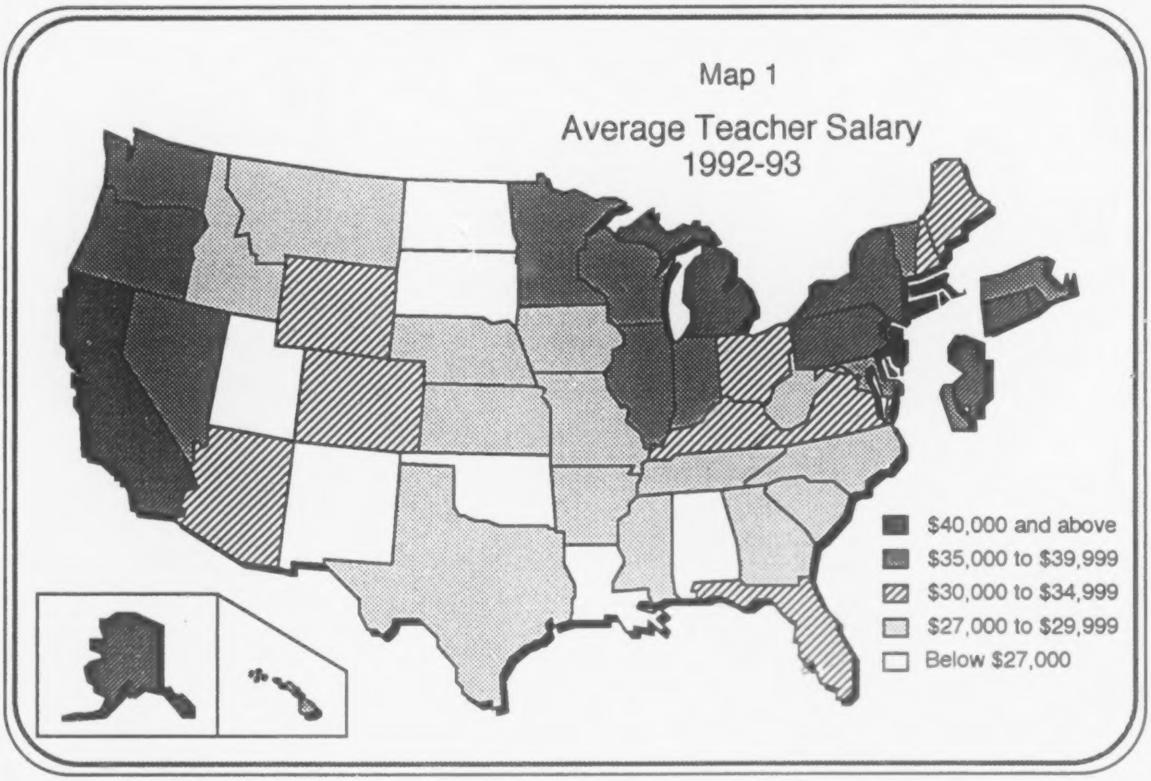
TRENDS IN THE AVERAGE SALARY, 1990-91 TO 1992-93

State	Average Salary 1990-91	Rank	Average Salary 1991-92	Rank	Average Salary 1992-93	Rank	Percent Change 1990-91 to 1991-92	Percent Change 1991-92 to 1992-93	Percent Change 1990-91 to 1992-93
Connecticut	$44,406	1	$47,510	1	$48,918	1	7.0%	3.0%	10.2%
Alaska	43,427	2	44,661	2	46,799	2	2.8%	4.8%	7.8%
New York	42,080	3	43,335	3	44,999	3	3.0%	3.8%	6.9%
New Jersey	38,411	7	41,027	4	43,355	4	6.8%	5.7%	12.9%
Michigan	39,910	4	40,631	5	42,256	5	1.8%	4.0%	5.9%
Pennsylvania	36,057	11	38,715	10	41,515	6	7.4%	7.2%	15.1%
Rhode Island	38,220	9	39,367	8	40,548	7	3.0%	3.0%	6.1%
D.C.	39,447	5	39,673	7	40,228	8	0.6%	1.4%	2.0%
California	39,439	6	39,922	6	39,922	9	1.2%	0.0%	1.2%
Massachusetts	36,460	10	37,256	11	39,245	10	2.2%	5.3%	7.6%
Maryland	38,312	8	39,054	9	38,753	11	1.9%	-0.8%	1.2%
Illinois	34,609	14	36,449	13	38,701	12	5.3%	6.2%	11.8%
Nevada	35,269	12	37,073	12	37,360	13	5.1%	0.8%	5.9%
Wisconsin	33,077	18	35,227	14	36,477	14	6.5%	3.5%	10.3%
Hawaii	33,548	15	34,488	16	36,472	15	2.8%	5.8%	8.7%
Delaware	35,246	13	34,548	15	36,217	16	-2.0%	4.8%	2.8%
Oregon	32,295	20	34,101	19	35,883	17	5.6%	5.2%	11.1%
Washington	33,079	17	34,283	18	35,870	18	3.6%	4.6%	8.4%
Vermont	31,236	24	33,646	21	35,328	19	7.7%	5.0%	13.1%
Minnesota	33,128	16	34,451	17	35,093	20	4.0%	1.9%	5.9%
Indiana	32,930	19	34,006	20	35,068	21	3.3%	3.1%	6.5%
Ohio	31,964	21	32,932	24	34,100	22	3.0%	3.5%	6.7%
New Hampshire	31,201	25	33,170	22	33,931	23	6.3%	2.3%	8.7%
Colorado	31,819	22	33,072	23	33,541	24	3.9%	1.4%	5.4%
Virginia	31,329	23	31,875	25	32,896	25	1.7%	3.2%	5.0%
Arizona	30,773	26	31,194	26	31,352	26	1.4%	0.5%	1.9%
Florida	30,555	27	31,070	27	31,172	27	1.7%	0.3%	2.0%
Kentucky	29,115	28	30,869	28	31,115	28	6.0%	0.8%	6.9%
Texas	28,631	30	29,608	31	30,974	29	3.4%	4.6%	8.2%
Kansas	28,175	36	28,814	34	30,713	30	2.3%	6.6%	9.0%
Wyoming	28,996	29	30,425	29	30,317	31	4.9%	-0.4%	4.6%
West Virginia	25,967	43	27,366	41	30,301	32	5.4%	10.7%	16.7%
Maine	28,523	31	30,097	30	30,250	33	5.5%	0.5%	6.1%
Iowa	27,977	37	29,202	32	30,124	34	4.4%	3.2%	7.7%
Missouri	28,286	33	28,882	33	29,421	35	2.1%	1.9%	4.0%
Tennessee	28,248	35	28,621	36	29,313	36	1.3%	2.4%	3.8%
South Carolina	28,301	32	28,068	38	29,151	37	-0.8%	3.9%	3.0%
North Carolina	28,276	34	28,791	35	29,108	38	1.8%	1.1%	2.9%
Nebraska	26,592	41	27,231	42	28,768	39	2.4%	5.6%	8.2%
Georgia	27,783	38	28,132	37	28,758	40	1.3%	2.2%	3.5%
Arkansas	23,878	49	27,435	40	28,013	41	14.9%	2.1%	17.3%
Montana	26,774	40	27,590	39	27,617	42	3.0%	0.1%	3.1%
Alabama	26,874	39	26,971	43	27,490	43	0.4%	1.9%	2.3%
Idaho	25,510	47	26,345	44	27,011	44	3.3%	2.5%	5.9%
Utah	25,578	46	26,339	45	26,997	45	3.0%	2.5%	5.5%
New Mexico	25,775	44	26,242	46	26,463	46	1.8%	0.8%	2.7%
Oklahoma	24,378	45	25,291	48	26,355	47	3.7%	4.2%	8.1%
Louisiana	26,170	42	25,948	47	26,074	48	-0.8%	0.5%	-0.4%
North Dakota	23,574	50	24,495	49	25,211	49	3.9%	2.9%	6.9%
Mississippi	24,306	48	24,367	50	24,367	50	0.3%	0.0%	0.3%
South Dakota	22,376	51	23,291	51	24,291	51	4.1%	4.3%	8.6%
U.S. AVERAGE	$32,978		$34,027		$35,104		3.2%	3.2%	6.4%
Virgin Islands	29,048		31,113		31,326		7.1%	0.7%	7.8%

TABLE I-3

AVERAGE TEACHER SALARIES FOR 1980–81, AND 1992–93

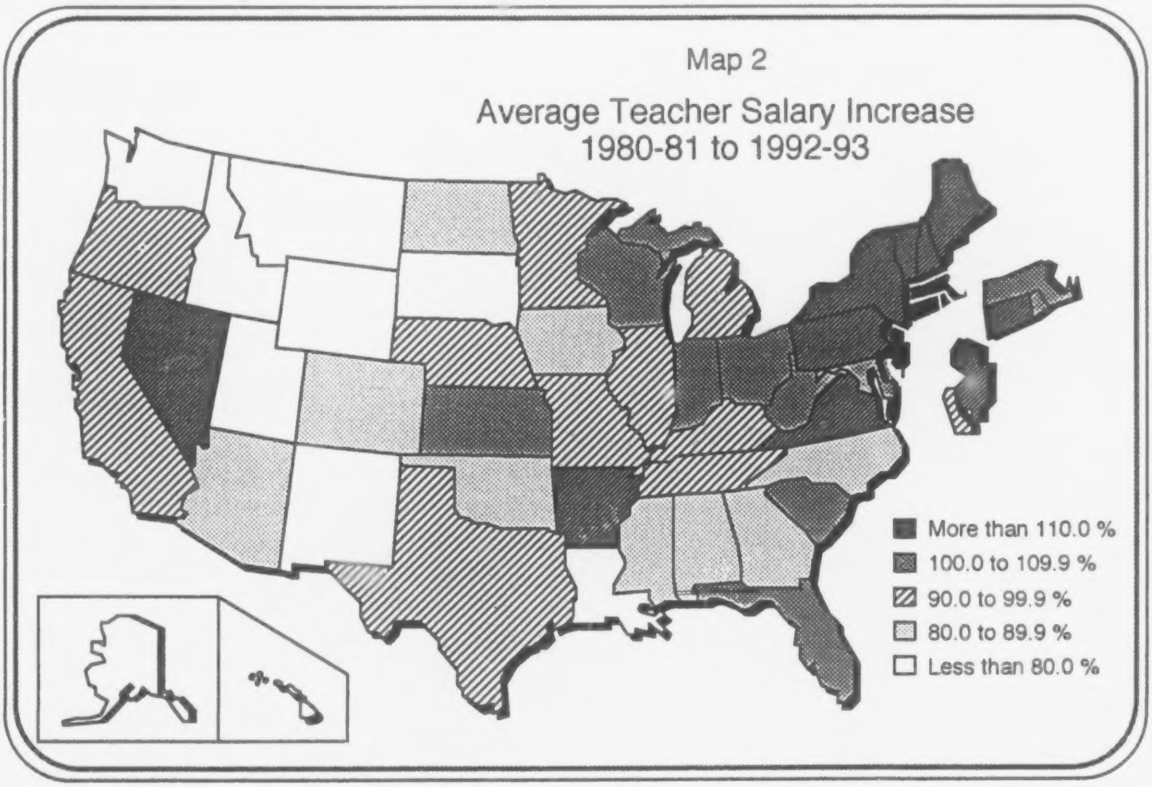
	--Average Salary--		----Rank----		Percent of --U.S. Average--		Change 1980–81 to	
State	1980–81	1992–93	1980–81	1992–93	1980–81	1992–93	1992–93	Rank
Connecticut	$17,404	$48,918	21	1	99%	139%	181.1%	1
Vermont	13,006	35,328	51	19	74%	101%	171.6%	2
New Hampshire	13,412	33,931	48	23	76%	97%	153.0%	3
New Jersey	18,245	43,355	13	4	104%	124%	137.6%	4
Pennsylvania	17,890	41,515	17	6	102%	118%	132.1%	5
Maine	13,994	30,250	45	33	80%	86%	116.2%	6
Virginia	15,535	32,896	33	25	89%	94%	111.8%	7
Nevada	17,700	37,360	19	13	101%	106%	111.1%	8
Arkansas	13,273	28,013	49	41	76%	80%	111.1%	9
New York	21,326	44,999	3	3	122%	128%	111.0%	10
Massachusetts	18,703	39,245	12	10	107%	112%	109.8%	11
Wisconsin	17,607	36,477	20	14	100%	104%	107.2%	12
Rhode Island	19,803	40,548	8	7	113%	116%	104.8%	13
Maryland	18,998	38,753	10	11	108%	110%	104.0%	14
Indiana	17,255	35,068	22	21	98%	100%	103.2%	15
South Carolina	14,353	29,151	44	37	82%	83%	103.1%	16
West Virginia	14,948	30,301	41	32	85%	86%	102.7%	17
Florida	15,406	31,172	36	27	88%	89%	102.3%	18
Ohio	16,904	34,100	24	22	96%	97%	101.7%	19
Kansas	15,250	30,713	37	30	87%	87%	101.4%	20
Illinois	19,425	38,701	9	12	111%	110%	99.2%	21
Michigan	21,213	42,256	5	5	121%	120%	99.2%	22
Delaware	18,205	36,217	14	16	104%	103%	98.9%	23
Oregon	18,047	35,883	15	17	103%	102%	98.8%	24
Kentucky	15,750	31,115	31	28	90%	89%	97.6%	25
Minnesota	17,777	35,093	18	20	101%	100%	97.4%	26
Texas	15,728	30,974	32	29	90%	88%	96.9%	27
Tennessee	15,118	29,313	39	36	86%	84%	93.9%	28
Nebraska	14,882	28,768	42	39	85%	82%	93.3%	29
California	20,729	39,922	7	9	118%	114%	92.6%	30
Missouri	15,421	29,421	35	35	88%	84%	90.8%	31
Colorado	17,917	33,541	16	24	102%	96%	87.2%	32
Mississippi	13,017	24,367	50	50	74%	69%	87.2%	33
Iowa	16,131	30,124	28	34	92%	86%	86.7%	34
Georgia	15,445	28,758	34	40	88%	82%	86.2%	35
North Carolina	15,858	29,108	30	38	90%	83%	83.6%	36
Arizona	17,201	31,352	23	26	98%	89%	82.3%	37
Oklahoma	14,492	26,355	43	47	83%	75%	81.9%	38
North Dakota	13,864	25,211	46	49	79%	72%	81.8%	39
Alabama	15,205	27,490	38	43	87%	78%	80.8%	40
Idaho	15,109	27,011	40	44	86%	77%	78.8%	41
South Dakota	13,674	24,291	47	51	78%	69%	77.6%	42
D.C.	22,882	40,228	2	8	130%	115%	75.8%	43
Montana	15,954	27,617	29	42	91%	79%	73.1%	44
Hawaii	21,147	36,472	6	15	121%	104%	72.5%	45
Washington	21,268	35,870	4	18	121%	102%	68.7%	46
Wyoming	18,718	30,317	11	31	107%	86%	62.0%	47
Alaska	29,048	46,799	1	2	166%	133%	61.1%	48
Utah	16,864	26,997	25	45	96%	77%	60.1%	49
Louisiana	16,557	26,074	27	48	94%	74%	57.5%	50
New Mexico	16,812	26,463	26	46	96%	75%	57.4%	51
U.S. AVERAGE	$17,544	$35,104			100%	100%	100.1%	



Map 1

Average Teacher Salary 1992-93

$40,000 and above
$35,000 to $39,999
$30,000 to $34,999
$27,000 to $29,999
Below $27,000



Map 2

Average Teacher Salary Increase 1980-81 to 1992-93

More than 110.0 %
100.0 to 109.9 %
90.0 to 99.9 %
80.0 to 89.9 %
Less than 80.0 %

TABLE I–4

AVERAGE SALARY OF TEACHERS IN 1992–93 COMPARED TO ANNUAL EARNINGS IN THE PRIVATE SECTOR, 1992

State	Average Teachers Salary	Private Sector Annual Earnings	Ratio of Teachers To Private Sector	Rank		
				1993	1992	1981
Rhode Island	$40,548	$22,734	1.78	1	1	2
Alaska	46,799	26,898	1.74	2	5	23
Pennsylvania	41,515	25,032	1.66	3	4	18
Wisconsin	36,477	22,230	1.64	4	3	10
Vermont	35,328	22,088	1.60	5	11	45
Nevada	37,360	23,381	1.60	6	2	16
Michigan	42,256	26,588	1.59	7	12	17
Oregon	35,883	22,687	1.58	8	10	12
Connecticut	48,918	31,708	1.54	9	8	39
Hawaii	36,472	23,742	1.54	10	17	1
Wyoming	30,317	20,232	1.50	11	9	38
Indiana	35,068	23,423	1.50	12	13	35
Kentucky	31,115	20,851	1.49	13	16	37
Iowa	30,124	20,195	1.49	14	18	24
Maryland	38,753	26,000	1.49	15	6	4
Washington	35,870	24,093	1.49	16	14	5
Montana	27,617	18,631	1.48	17	7	14
South Dakota	24,291	16,544	1.47	18	33	15
New York	44,999	30,689	1.47	19	22	8
Illinois	38,701	26,433	1.46	20	30	20
Arkansas	28,013	19,202	1.46	21	23	41
Nebraska	28,768	19,746	1.46	22	19	25
California	39,922	27,571	1.45	23	15	6
Maine	30,250	20,909	1.45	24	21	26
Minnesota	35,093	24,556	1.43	25	27	13
Colorado	33,541	23,626	1.42	26	26	28
Ohio	34,100	24,134	1.41	27	31	44
New Jersey	43,355	30,731	1.41	28	35	31
Arizona	31,352	22,309	1.41	29	28	19
Florida	31,172	22,187	1.40	30	20	22
South Carolina	29,151	20,761	1.40	31	34	29
Kansas	30,713	21,892	1.40	32	37	40
Delaware	36,217	25,976	1.39	33	25	33
New Hampshire	33,931	24,458	1.39	34	24	47
Virginia	32,896	23,825	1.38	35	32	27
West Virginia	30,301	21,954	1.38	36	45	50
Massachusetts	39,245	28,656	1.37	37	39	7
North Dakota	25,211	18,559	1.36	38	29	46
Idaho	27,011	19,988	1.35	39	42	36
North Carolina	29,108	21,720	1.34	40	36	9
Tennessee	29,313	22,051	1.33	41	43	30
New Mexico	26,463	19,936	1.33	42	38	11
Mississippi	24,367	18,892	1.29	43	40	42
Alabama	27,490	21,544	1.28	44	44	32
Utah	26,997	21,165	1.28	45	46	21
Texas	30,974	24,303	1.27	46	49	49
Missouri	29,421	23,231	1.27	47	41	43
Oklahoma	26,355	21,513	1.23	48	47	51
Georgia	28,758	24,122	1.19	49	48	34
Louisiana	26,074	22,279	1.17	50	50	48
D.C.	40,228	35,012	1.15	51	51	3
U.S. AVERAGE	$35,104	$24,522	1.43			

TABLE I-5

AVERAGE SALARY OF TEACHERS IN 1992-93 COMPARED TO 1992 PER CAPITA PERSONAL INCOME

			Ratio of Salary to Per Capita Income			Rank		
State	Average Teacher Salary	Per Capita Personal Income	1992-93	1991-92	1980-81	92-93	91-92	80-81
Alaska	$46,799	$21,603	2.17	2.00	2.10	1	4	2
Michigan	42,256	19,508	2.17	2.18	2.09	2	1	3
Pennsylvania	41,515	20,253	2.05	2.02	1.81	3	3	22
West Virginia	30,301	15,065	2.01	1.93	1.89	4	9	14
Rhode Island	40,548	20,299	2.00	2.09	2.08	5	2	4
Oregon	35,883	18,202	1.97	1.94	1.83	6	8	21
Wisconsin	36,477	18,727	1.95	1.95	1.79	7	7	24
Indiana	35,068	18,043	1.94	1.99	1.87	8	5	18
New York	44,999	23,534	1.91	1.93	1.99	9	10	7
Kentucky	31,115	16,534	1.88	1.99	1.96	10	6	11
California	39,922	21,278	1.88	1.93	1.79	11	11	26
Vermont	35,328	18,834	1.88	1.87	1.52	12	14	49
Nevada	37,360	20,266	1.84	1.93	1.55	13	12	46
Arizona	31,352	17,119	1.83	1.90	1.88	14	13	17
Ohio	34,100	18,624	1.83	1.85	1.74	15	15	33
South Carolina	29,151	15,989	1.82	1.83	1.89	16	18	13
Arkansas	28,013	15,439	1.81	1.84	1.78	17	16	27
Connecticut	48,918	26,979	1.81	1.84	1.44	18	17	50
Illinois	38,701	21,608	1.79	1.75	1.79	19	27	23
Utah	26,997	15,325	1.76	1.83	2.12	20	20	1
Washington	35,870	20,398	1.76	1.79	1.98	21	21	8
Minnesota	35,093	20,049	1.75	1.76	1.77	22	25	29
Wyoming	30,317	17,423	1.74	1.78	1.65	23	22	39
Texas	30,974	17,892	1.73	1.72	1.61	24	33	41
Mississippi	24,367	14,088	1.73	1.83	1.88	25	19	16
New Mexico	26,463	15,353	1.72	1.77	2.06	26	24	5
Montana	27,617	16,062	1.72	1.72	1.79	27	32	25
Hawaii	36,472	21,218	1.72	1.62	1.99	28	44	6
Alabama	27,490	16,220	1.69	1.73	1.97	29	31	10
Tennessee	29,313	17,341	1.69	1.75	1.88	30	28	15
Delaware	36,217	21,451	1.69	1.70	1.78	31	37	28
Maryland	38,753	22,974	1.69	1.77	1.76	32	23	32
Idaho	27,011	16,067	1.68	1.71	1.76	33	34	30
Colorado	33,541	20,124	1.67	1.70	1.69	34	35	36
Maine	30,250	18,226	1.66	1.74	1.70	35	30	34
Louisiana	26,074	15,712	1.66	1.74	1.91	36	29	12
North Carolina	29,108	17,667	1.65	1.76	1.98	37	26	9
Iowa	30,124	18,287	1.65	1.67	1.69	38	39	35
New Jersey	43,355	26,457	1.64	1.62	1.58	39	45	45
Massachusetts	39,245	24,059	1.63	1.63	1.76	40	41	31
Oklahoma	26,355	16,198	1.63	1.68	1.54	41	38	47
Florida	31,172	19,397	1.61	1.65	1.58	42	40	44
Virginia	32,896	20,629	1.59	1.61	1.58	43	46	43
Georgia	28,758	18,130	1.59	1.70	1.85	44	36	20
Kansas	30,713	19,376	1.59	1.57	1.53	45	48	48
Missouri	29,421	18,835	1.56	1.62	1.66	46	43	38
D.C.	40,228	26,360	1.53	1.62	1.86	47	42	19
Nebraska	28,768	19,084	1.51	1.53	1.60	48	49	42
North Dakota	25,211	16,854	1.50	1.52	1.62	49	50	40
New Hampshire	33,931	22,934	1.48	1.58	1.37	50	47	51
South Dakota	24,291	16,558	1.47	1.42	1.66	51	51	37
U.S. AVERAGE	$35,104	$19,841	1.77	1.78	1.77			

TABLE I–6

STATE RANKINGS BY 1992–93 AVERAGE TEACHER SALARY ADJUSTED BY THE 1992 AFT INTERSTATE COST–OF–LIVING INDEX

State	Average Salary	Cost of Living Index	Salary Adjust–ment	Adjusted Average Salary	Adjusted Rank	Original Rank
Michigan	$42,256	97.4	1,108	$43,364	1	5
Pennsylvania	41,515	100.5	(193)	41,322	2	6
New York	44,999	109.2	(3,777)	41,222	3	3
Connecticut	48,918	119.2	(7,885)	41,033	4	1
Wisconsin	36,477	96.5	1,331	37,808	5	14
Oregon	35,883	95.6	1,633	37,516	6	17
Illinois	38,701	103.8	(1,420)	37,281	7	12
Indiana	35,068	94.8	1,914	36,982	8	21
Rhode Island	40,548	110.5	(3,845)	36,703	9	7
Nevada	37,360	103.3	(1,185)	36,175	10	13
New Jersey	43,355	120.0	(7,233)	36,122	11	4
Washington	35,870	99.8	78	35,948	12	18
California	39,922	112.3	(4,373)	35,549	13	9
Virginia	32,896	92.7	2,603	35,499	14	25
Minnesota	35,093	99.1	311	35,404	15	20
Kentucky	31,115	87.9	4,282	35,397	16	28
Vermont	35,328	100.3	(114)	35,214	17	19
Alaska	46,799	132.9	(11,585)	35,214	18	2
Maryland	38,753	110.6	(3,705)	35,048	19	11
West Virginia	30,301	86.7	4,641	34,942	20	32
Ohio	34,100	97.8	784	34,884	21	22
Texas	30,974	89.2	3,735	34,709	22	29
Delaware	36,217	105.6	(1,927)	34,290	23	16
Massachusetts	39,245	115.7	(5,321)	33,924	24	10
Florida	31,172	92.4	2,569	33,741	25	27
Colorado	33,541	99.8	70	33,611	26	24
South Carolina	29,151	88.3	3,874	33,025	27	37
Tennessee	29,313	89.0	3,627	32,940	28	36
Kansas	30,713	94.1	1,941	32,654	29	30
Wyoming	30,317	93.2	2,216	32,533	30	31
North Carolina	29,108	89.6	3,393	32,501	31	38
Arkansas	28,013	87.2	4,102	32,115	32	41
Iowa	30,124	94.3	1,815	31,939	33	34
Georgia	28,758	90.4	3,044	31,802	34	40
Arizona	31,352	100.2	(47)	31,305	35	26
Alabama	27,490	88.2	3,693	31,183	36	43
New Hampshire	33,931	109.3	(2,882)	31,049	37	23
Maine	30,250	98.4	493	30,743	38	33
Missouri	29,421	95.8	1,296	30,717	39	35
Montana	27,617	90.4	2,948	30,565	40	42
Nebraska	28,768	94.3	1,741	30,509	41	39
Oklahoma	26,355	87.3	3,820	30,175	42	47
D.C.	40,228	133.8	(10,162)	30,066	43	8
Louisiana	26,074	87.7	3,656	29,730	44	48
Idaho	27,011	91.4	2,541	29,552	45	44
Utah	26,997	94.3	1,646	28,643	46	45
New Mexico	26,463	93.2	1,935	28,398	47	46
Mississippi	24,367	86.7	3,741	28,108	48	50
Hawaii	36,472	132.5	(8,946)	27,526	49	15
North Dakota	25,211	93.7	1,693	26,904	50	49
South Dakota	24,291	91.9	2,149	26,440	51	51
U.S. AVERAGE	35,104	100.0	0	$35,104		

Source: AFT Research Department (see F. Howard Nelson, "An Interstate Cost-of-Living Index," Educational Evaluation and Policy Analysis, Spring 1991, Vol. 13, pp 103-111, for technical documentation) except Hawaii, Alaska, and Washington, D.C. (see data sources appendix to this report).

TABLE I-7

STATE RANKINGS BY 1992–93 AVERAGE TEACHER SALARY ADJUSTED FOR DIFFERENCES IN TEACHING EXPERIENCE AMONG STATES

	1992–93		Average Years of Experience*	Annual Salary Change	Experience		Adjusted Average Salary	Rank	Original Rank
	Starting Salary	Average Salary			Exceeding U.S. Average	Salary Adjustment			
Alaska	$31,055	$46,799	12.32	$1,277	-2.5	$3,159	$49,958	1	2
Connecticut	27,622	48,918	17.19	1,239	2.4	(2,969)	45,949	2	1
New York	26,639	44,999	16.11	1,140	1.3	(1,492)	43,507	3	3
New Jersey	27,655	43,355	16.79	935	2.0	(1,867)	41,488	4	4
California	23,980	39,922	14.57	1,094	-0.2	248	40,170	7	9
Michigan	23,856	42,256	17.39	1,058	2.6	(2,744)	39,512	5	5
Rhode Island	22,350	40,548	15.78	1,153	1.0	(1,135)	39,413	11	7
Pennsylvania	26,575	41,515	17.27	865	2.5	(2,138)	39,377	6	6
Nevada	23,664	37,360	13.63	1,005	-1.2	1,174	38,534	10	13
Maryland	24,508	38,753	15.51	918	0.7	(657)	38,096	8	11
Illinois	25,177	38,701	15.65	864	0.9	(737)	37,964	12	12
D.C.	23,305	40,228	17.57	963	2.8	(2,672)	37,556	14	8
Hawaii	25,100	36,472	14.10	806	-0.7	558	37,030	19	15
Massachusetts	23,375	39,245	17.34	915	2.5	(2,323)	36,922	9	10
Washington	21,428	35,870	14.01	1,031	-0.8	807	36,677	16	18
Vermont	21,900	35,328	13.52	993	-1.3	1,265	36,594	15	19
Oregon	22,571	35,883	14.53	916	-0.3	245	36,128	13	17
Wisconsin	22,889	36,477	15.74	863	0.9	(818)	35,659	18	14
Indiana	21,503	35,068	15.27	888	0.5	(420)	34,648	21	21
Delaware	22,377	36,217	16.86	821	2.1	(1,692)	34,525	17	16
New Hampshire	22,750	33,931	14.06	795	-0.7	583	34,514	20	23
Colorado	19,776	33,541	14.29	964	-0.5	493	34,034	22	24
Minnesota	22,050	35,093	16.28	801	1.5	(1,190)	33,903	24	20
Ohio	19,082	34,100	15.60	963	0.8	(772)	33,328	23	22
Virginia	22,856	32,896	14.22	706	-0.6	408	33,304	25	25
Arizona	22,150	31,352	12.54	734	-2.3	1,658	33,010	26	26
Texas	21,411	30,974	12.56	762	-2.2	1,705	32,679	27	29
Florida	21,607	31,172	13.25	722	-1.6	1,119	32,291	28	27
Kentucky	20,638	31,115	14.75	710	-0.0	33	31,148	31	28
Wyoming	19,966	30,317	13.79	751	-1.0	755	31,072	30	31
West Virginia	21,278	30,301	13.63	662	-1.2	771	31,072	32	32
Maine	19,350	30,250	13.79	790	-1.0	797	31,047	33	33
Kansas	20,445	30,713	14.34	716	-0.5	331	31,044	29	30
South Carolina	20,381	29,151	13.64	643	-1.2	743	29,894	35	37
Georgia	21,010	28,758	12.95	598	-1.9	1,108	29,866	34	40
Missouri	20,745	29,421	14.20	611	-0.6	362	29,783	36	35
Iowa	20,500	30,124	15.49	621	0.7	(428)	29,696	41	34
North Carolina	19,820	29,108	13.97	665	-0.8	552	29,660	40	38
Nebraska	20,237	28,768	13.96	611	-0.8	509	29,277	42	39
Arkansas	20,250	28,013	12.78	607	-2.0	1,226	29,239	38	41
Utah	18,229	26,997	12.22	718	-2.6	1,851	28,848	39	45
Tennessee	20,982	29,313	15.83	526	1.0	(544)	28,769	37	36
Montana	18,775	27,617	13.80	641	-1.0	639	28,256	44	42
Idaho	17,164	27,011	13.15	749	-1.6	1,232	28,243	43	44
Alabama	21,250	27,490	13.87	450	-0.9	416	27,906	45	43
New Mexico	19,675	26,463	12.76	532	-2.0	1,084	27,547	47	46
Oklahoma	20,582	26,355	12.65	456	-2.1	977	27,332	46	47
Louisiana	14,631	26,074	13.45	851	-1.3	1,146	27,220	48	48
North Dakota	17,267	25,211	13.94	570	-0.9	487	25,698	49	49
South Dakota	18,471	24,291	13.01	447	-1.8	801	25,092	50	51
Mississippi	17,960	24,367	15.14	423	0.3	(145)	24,222	51	50
U.S. AVERAGE	$22,505	$35,104	14.80	$851	0.0	$0	$35,104		

* Sum of full-time public school (U.S. average is 14.2 years), and private school (U.S. average is .51 years) teaching experience, and one-half of part-time public experience (U.S. average is ..42 years).
Data from U.S. Department of Education's 1990-91 Schools and Staffing Survey.

TABLE I–8A

SALARIES FOR TEACHERS WITH A MASTERS'S DEGREE AND 20 YEARS OF EXPERIENCE IN 1990–91

State	1990-91 Average Salary	Rank	Masters 20 years Exper.	Rank	Percentile Distribution 95%	75%	Median	25%	5%
Alaska	$43,427	2	$49,773	1	$59,694	$51,623	$49,500	$46,000	$43,061
D.C.	39,447	5	46,654	2	NA	NA	46,654	NA	NA
Connecticut	44,406	1	46,483	3	49,920	47,830	46,613	45,154	43,281
New Jersey	38,411	7	44,689	4	53,180	48,896	45,610	41,500	31,452
New York	42,080	3	44,445	5	57,477	50,998	42,806	39,130	33,026
California	39,439	6	41,881	6	49,221	44,921	42,373	38,601	34,093
Michigan	39,910	4	40,694	7	50,923	44,880	40,185	36,260	31,923
Maryland	38,312	8	40,162	8	44,566	42,083	40,323	38,309	35,190
Rhode Island	38,220	9	39,948	9	43,281	41,442	40,639	39,323	38,309
Pennsylvania	36,057	11	39,144	10	50,300	43,510	38,275	34,359	31,065
Delaware	35,246	13	38,006	11	42,124	40,650	37,954	36,182	32,949
Nevada	35,269	12	37,887	12	44,985	40,704	39,049	35,564	28,960
Indiana	32,930	19	37,711	13	43,115	40,000	37,790	35,581	32,834
Hawaii	33,548	15	37,443	14	NA	NA	37,443	NA	NA
Washington	33,079	17	37,167	15	41,450	37,742	37,742	36,364	26,940
Massachusetts	36,460	10	36,807	16	43,346	39,169	37,060	34,782	30,417
Wisconsin	33,077	18	36,196	17	41,876	38,688	35,714	33,609	31,184
Ohio	31,964	21	36,044	18	43,996	38,511	35,966	33,145	29,509
New Hampshire	31,201	25	35,882	19	42,289	38,650	35,987	33,239	28,924
Minnesota	33,128	16	35,506	20	43,203	38,311	34,988	32,491	29,085
Florida	30,555	27	34,877	21	42,200	36,415	34,474	32,700	29,568
Vermont	31,236	24	34,722	22	39,943	36,410	35,244	32,391	28,560
Illinois	34,609	14	34,704	23	51,681	38,965	33,508	29,328	24,255
Virginia	31,329	23	34,110	24	42,685	36,474	32,984	30,586	28,725
Arizona	30,773	26	33,258	25	39,250	35,981	33,260	31,195	24,781
Wyoming	28,996	29	32,850	26	37,450	34,900	32,942	31,340	28,600
Maine	28,523	31	32,846	27	36,682	34,243	33,075	31,550	28,255
South Carolina	28,301	32	32,794	28	35,711	33,797	32,915	31,593	30,790
Colorado	31,819	22	32,571	29	42,000	36,655	31,859	27,850	24,600
Oregon	32,295	20	32,279	30	37,412	35,213	32,647	29,937	24,859
Georgia	27,783	38	32,211	31	36,602	33,259	31,826	30,236	30,236
North Carolina	28,276	34	32,076	32	35,260	31,700	31,700	31,700	31,250
Texas	28,631	30	30,903	33	35,770	32,485	30,300	28,980	28,000
New Mexico	25,775	44	30,443	34	33,892	31,450	30,205	29,453	27,589
Montana	26,774	40	30,426	35	35,332	32,870	30,465	28,050	25,745
Kentucky	29,115	28	30,277	36	32,750	31,331	30,004	29,099	28,680
Utah	25,578	45	30,239	37	33,210	31,568	30,323	28,705	26,369
Kansas	28,175	36	29,831	38	34,287	31,300	29,873	28,410	24,620
Iowa	27,977	37	29,333	39	34,394	31,680	29,744	27,220	23,020
Idaho	25,510	46	28,750	40	33,142	30,777	28,230	27,000	24,518
West Virginia	25,967	43	28,557	41	30,398	28,800	28,373	28,373	26,908
Alabama	26,874	39	28,268	42	32,200	28,670	27,658	27,161	25,725
Missouri	28,286	33	28,095	43	41,050	32,057	27,161	23,500	18,000
Mississippi	24,306	48	27,975	44	29,768	28,315	27,825	27,425	27,225
Tennessee	28,248	35	27,916	45	33,819	30,094	27,551	25,202	23,670
Nebraska	26,592	41	27,641	46	35,051	29,748	27,180	25,040	22,000
Louisiana	26,170	42	26,576	47	32,915	28,506	25,838	24,638	22,538
Oklahoma	24,378	47	25,904	48	30,696	27,710	25,332	23,638	23,138
North Dakota	23,574	50	25,563	49	31,108	27,918	25,600	23,000	20,375
South Dakota	22,376	51	25,472	50	30,612	27,925	24,600	22,720	21,100
Arkansas	23,878	49	24,203	51	29,047	25,943	24,016	22,319	20,092
Average	$31,355		$33,199		$42,531	$37,865	$35,162	$32,438	$29,007

Source: Unpublished tabulations of the Schools and Staffing Survey, NCES, U.S. Department of Education, prepared for the AFT by the National Data Resource Center.

TABLE I–8B

WITHIN-STATE INEQUALITIES IN TEACHER SALARIES FOR TEACHERS WITH A MASTERS'S DEGREE AND 20 YEARS OF EXPERIENCE IN 1990–91

State	Standard Deviation	Coefficient of Variation	Rank	Ratio of 75th Percentile to 25th Percentile	Rank	Ratio of 95th Percentile to 5th Percentile	Rank	Overall Inequality Rank	Percent Of Population Rural
Missouri	$6,860	24.4%	1	1.36	1	2.28	1	1	33.8
Illinois	7,788	22.4%	2	1.33	2	2.13	2	2	17.3
New York	7,797	17.5%	3	1.30	4	1.74	3	3	8.9
Colorado	5,443	16.7%	4	1.32	3	1.71	4	4	18.5
Pennsylvania	6,166	15.8%	6	1.27	5	1.62	6	5	15.2
Michigan	5,937	14.6%	9	1.24	6	1.60	7	6	19.9
Nebraska	4,119	14.9%	7	1.19	11	1.59	8	7	51.5
New Jersey	6,483	14.5%	10	1.18	13	1.69	5	8	0.0
North Dakota	3,603	14.1%	11	1.21	8	1.53	12	9	59.7
Virginia	5,026	14.7%	8	1.19	10	1.49	16	10	29.9
South Dakota	3,437	13.5%	12	1.23	7	1.45	20	11	70.5
Oregon	3,915	12.1%	15	1.18	14	1.50	13	12	31.5
Arizona	4,038	12.1%	14	1.15	23	1.58	9	13	21.0
Minnesota	4,097	11.5%	17	1.18	12	1.49	17	14	32.3
Iowa	3,376	11.5%	18	1.16	17	1.49	14	15	56.0
Ohio	4,448	12.3%	13	1.16	21	1.49	15	16	21.0
Tennessee	3,199	11.5%	19	1.19	9	1.43	23	17	33.2
California	4,855	11.6%	16	1.16	18	1.44	22	18	4.3
New Hampshir	4,072	11.3%	20	1.16	19	1.46	18	19	43.9
Washington	5,858	15.8%	5	1.04	46	1.54	11	20	18.3
Arkansas	2,719	11.2%	21	1.16	20	1.45	21	21	59.9
Louisiana	2,854	10.7%	22	1.16	22	1.46	19	22	30.5
Nevada	3,768	9.9%	29	1.14	25	1.55	10	23	17.1
Montana	3,221	10.6%	25	1.17	16	1.37	29	24	76.1
Oklahoma	2,713	10.5%	26	1.17	15	1.33	32	25	40.6
Massachusetts	3,909	10.6%	24	1.13	27	1.43	25	26	9.6
Vermont	3,501	10.1%	27	1.12	29	1.40	26	27	76.6
Idaho	2,879	10.0%	28	1.14	26	1.35	30	28	79.6
Wisconsin	3,362	9.3%	34	1.15	24	1.34	31	29	32.6
Alaska	4,796	9.6%	30	1.12	31	1.39	28	30	58.9
Florida	3,275	9.4%	33	1.11	33	1.43	24	31	9.2
Wyoming	3,494	10.6%	23	1.11	34	1.31	34	32	70.4
Kansas	2,845	9.5%	32	1.10	35	1.39	27	33	46.2
Indiana	3,476	9.2%	35	1.12	28	1.31	33	34	31.5
Texas	2,543	8.2%	36	1.12	32	1.28	37	35	18.4
Delaware	2,670	7.0%	40	1.12	30	1.28	36	36	33.7
Maine	2,521	7.7%	37	1.09	39	1.30	35	37	64.0
Maryland	2,830	7.0%	39	1.10	38	1.27	38	38	7.2
Utah	1,933	6.4%	43	1.10	37	1.26	39	39	22.5
Georgia	2,207	6.9%	41	1.10	36	1.21	42	40	35.0
Alabama	2,166	7.7%	38	1.06	44	1.25	40	41	32.6
Rhode Island	3,844	9.6%	31	1.05	45	1.13	46	42	7.5
New Mexico	1,976	6.5%	42	1.07	42	1.23	41	43	53.6
Kentucky	1,770	5.8%	45	1.08	40	1.14	45	44	54.2
South Carolina	1,637	5.0%	47	1.07	41	1.16	43	45	39.2
Connecticut	2,935	6.3%	44	1.06	43	1.15	44	46	7.6
West Virginia	1,516	5.3%	46	1.02	48	1.13	47	47	63.2
Mississippi	1,122	4.0%	48	1.03	47	1.09	49	48	68.9
North Carolina	1,188	3.7%	49	1.00	49	1.13	48	49	43.3
Hawaii			50		50		50	50	24.5
D.C.			50		50		50	50	0.0
U.S. Average (Weighted)	$4,211	11.8%		1.15		1.45			35.3

Note: Approximately two-thirds of teachers have salaries within one standard deviation of the mean. The coefficient of variation is a unit-free measure of variation with well-known and desirable mathematical properties calculated by dividing the standard deviation by the mean (or average) and expressed as a percentage.

TABLE I-9

STATE RANKINGS BY 1992-93 AVERAGE TEACHER SALARY
NET OF EMPLOYEE CONTRIBUTIONS FOR RETIREMENT AND SOCIAL SECURITY

	Social	Pension Contribution		Hypothetical Salary Adjustment			Average	Adjusted Average		Original
	Security	Teacher	Employer	Pension	S.S.	Total	Salary	Salary	Rank	Rank
Connecticut	No	6.0%	18.3%	-6.0%		-6.0%	$48,918	$45,983	1	1
Alaska	No	8.7% ■	19.7%	-8.7%		-8.7%	46,799	42,751	2	2
New York	Yes	3.0% ■	Varies	-3.0%	-5.0%	-8.0%	44,999	41,399	3	3
Michigan	Yes	4%(varies) ■	5%(varies)	-4.0%	-5.0%	-9.0%	42,256	38,453	4	5
New Jersey	Yes	5.1-9.1% ■	?	-9.1%	-5.0%	-14.1%	43,355	37,242	5	4
Maryland	Yes	0.0%	14.0%		-5.0%	-5.0%	38,753	36,815	6	10
Pennsylvania	Yes	6.5% ■	14.4%	-6.5%	-5.0%	-11.5%	41,515	36,741	7	6
California	No	8.0% ■	12.6% *	-8.0%		-8.0%	39,922	36,728	8	8
Massachusetts	No	8.0%	11.7%	-8.0%		-8.0%	39,245	36,105	9	9
Illinois	No	8.0% ■	7.8%	-8.0%		-8.0%	38,701	35,605	10	11
Rhode Island	Yes	8.5% ■	14.7%	-8.5%	-5.0%	-13.5%	40,548	35,074	11	7
Hawaii	Yew	0.0%	17.0%		-5.0%	-5.0%	36,472	34,648	12	14
Nevada	No	9.5% **	9.5%	-9.5%		-9.5%	37,360	33,811	13	12
Delaware	Yes	5.0%	9.0%	-5.0%	-5.0%	-10.0%	36,217	32,595	14	15
Vermont	Yes	2.8%	8.9% *	-2.8%	-5.0%	-7.8%	35,328	32,590	15	18
Wisconsin	Yes	6.2% ■	6.2%	-6.2%	-5.0%	-11.2%	36,477	32,392	16	13
Indiana	Yew	3.0% ■	** *	-3.0%	-5.0%	-8.0%	35,068	32,263	17	20
Oregon	Yes	6.0% **	10.2%	-6.0%	-5.0%	-11.0%	35,883	31,936	18	16
Washington	Yes	6.3% ■	12.2% *	-6.3%	-5.0%	-11.3%	35,870	31,831	19	17
Minnesota	Yes	4.5% ■	8.1%	-4.5%	-5.0%	-9.5%	35,093	31,759	20	19
Ohio	No	9.3% ■	12.0%	-9.3%		-9.3%	34,100	30,946	21	21
New Hampshire	Yes	5.0% ■	2.0%	-5.0%	-5.0%	-10.0%	33,931	30,538	22	22
Florida	Yes	0.0%	15.7%		-5.0%	-5.0%	31,172	29,613	23	26
Virginia	Yes	5.0% ■	8.0%	-5.0%	-5.0%	-10.0%	32,896	29,606	24	24
Colorado	Yes	8.0% ■	9.7%	-8.0%	-5.0%	-13.0%	33,541	29,181	25	23
Arizona	Yes	3.8%	3.8%	-3.8%	-5.0%	-8.8%	31,352	28,587	26	25
Maine	No	6.5% ■	17.0%	-6.5%		-6.5%	30,250	28,284	27	32
Kentucky	No	9.2% ■	12.4% *	-9.2%		-9.2%	31,115	28,252	28	27
Kansas	Yes	4.0% ■	3.1%	-4.0%	-5.0%	-9.0%	30,713	27,949	29	29
Iowa	Yes	3.8% ■	5.8%	-3.8%	-5.0%	-8.8%	30,124	27,488	30	33
Texas	Yes	6.4% ■	7.3%	-6.4%	-5.0%	-11.4%	30,974	27,443	31	28
West Virginia	Yes	4.5% ■	?	-4.5%	-5.0%	-9.5%	30,301	27,422	32	31
Wyoming	Yes	5.6% ■	5.7%	-5.6%	-5.0%	-10.6%	30,317	27,103	33	30
Missouri	No	10.0%	10.0%	-10.0%		-10.0%	29,421	26,479	34	34
Tennessee	Yes	5.0%	8.6%	-5.0%	-5.0%	-10.0%	29,313	26,382	35	35
South Carolina	Yes	6.0% ■	7.8%	-6.0%	-5.0%	-11.0%	29,151	25,944	36	36
North Carolina	Yes	6.0% ■	7.5%	-6.0%	-5.0%	-11.0%	29,108	25,906	37	37
Utah	Yes	0.0%	13.5%		-5.0%	-5.0%	26,997	25,647	38	44
Georgia	Yes	6.0% ■	10.6%	-6.0%	-5.0%	-11.0%	28,758	25,595	39	39
Nebraska	Yes	6.5% ■	7.2%	-6.5%	-5.0%	-11.5%	28,768	25,460	40	38
Arkansas	Yes	6.0%	12.0%	-6.0%	-5.0%	-11.0%	28,013	24,932	41	40
Alabama	Yes	5.8% ■	6.3%	-5.8%	-5.0%	-10.8%	27,490	24,521	42	42
Montana	Yes	7.0% ■	7.5%	-7.0%	-5.0%	-12.0%	27,617	24,303	43	41
Idaho	Yes	5.3% ■	8.9%	-5.3%	-5.0%	-10.3%	27,011	24,229	44	43
Louisiana	No	8.0% ■	13.8%	-8.0%		-8.0%	26,074	23,988	45	47
New Mexico	Yes	7.6% ■	8.6%	-7.6%	-5.0%	-12.6%	26,463	23,129	46	45
North Dakota	Yes	6.8% ■	6.8%	-6.8%	-5.0%	-11.8%	25,211	22,249	47	48
Oklahoma	Yes	6-11% ■	1.5% *	-11.0%	-5.0%	-16.0%	26,355	22,138	48	46
South Dakota	Yes	5.0% ■	5.0%	-5.0%	-5.0%	-10.0%	24,291	21,862	49	50
Mississippi	Yes	7.2% ■	9.8%	-7.2%	-5.0%	-12.2%	24,367	21,394	50	49
U.S. AVERAGE		5.3%	8.5%	-6.0%	-3.6%	-9.6%	$35,104	$31,834		

Source: Wisconsin Retirement Research Committee, 1992 Comparative Study of Major Public Employee Retirement Systems

* Reported as a contribution level insufficient to fully fund the retirement program.

■ Employer "pick-up" of employee contribution permitted.

** Employer "pick-up" of employee contribution required and is added to salary data in this report.

TABLE I–10

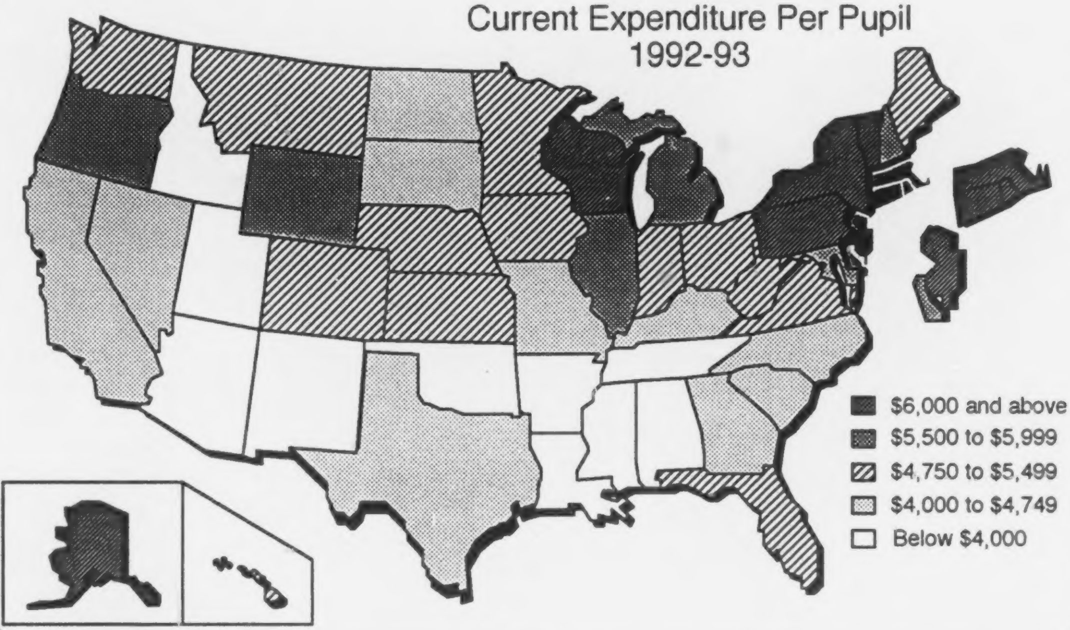
EXPENDITURE PER PUPIL (MEMBERSHIP) IN 1992–93*, AND THE AVERAGE TEACHER SALARY IN 1992–93

	State	Expenditure Per Pupil		Percent of U.S. Average	Average Salary 1992–93	Percent of U.S. Average	Salary Rank
1	New Jersey	$9,081	c	171%	$43,355	124%	4
2	Alaska	8,273	c	156%	46,799	133%	2
3	D.C.	7,810	b	147%	40,228	115%	8
4	New York	7,767	c	146%	44,999	128%	3
5	Connecticut	7,410		139%	48,918	139%	1
6	Vermont	7,046	c	132%	35,328	101%	19
7	Pennsylvania	6,981	c	131%	41,515	118%	6
8	Massachusetts	6,295	a	118%	39,245	112%	10
9	Rhode Island	6,266	a	118%	40,548	116%	7
10	Wisconsin	6,130		115%	36,477	104%	14
11	Maryland	5,923		111%	38,753	110%	11
12	Oregon	5,881	b	111%	35,883	102%	17
13	Delaware	5,763	a	108%	36,217	103%	16
14	Michigan	5,644	c	106%	42,256	120%	5
15	Wyoming	5,620	a	106%	30,317	86%	31
16	Illinois	5,510	b	104%	38,701	110%	12
17	New Hampshire	5,507	a	104%	33,931	97%	23
18	Minnesota	5,457		103%	35,093	100%	20
19	West Virginia	5,390	c	101%	30,301	86%	32
20	Maine	5,352	b	101%	30,250	86%	33
21	Hawaii	5,296	b	100%	36,472	104%	15
22	Virginia	5,244		99%	32,896	94%	25
23	Washington	5,213		98%	35,870	102%	18
24	Ohio	5,193	b	98%	34,100	97%	22
25	Nebraska	5,110	b	96%	28,768	82%	39
26	Kansas	5,083	a	96%	30,713	87%	30
27	Montana	4,929	c	93%	27,617	79%	42
28	Florida	4,905		92%	31,172	89%	27
29	Iowa	4,824	b	91%	30,124	86%	34
30	Colorado	4,817	b	91%	33,541	96%	24
31	Indiana	4,795	b	90%	35,068	100%	21
32	California	4,627	c	87%	39,922	114%	9
33	Nevada	4,553	b	86%	37,360	106%	13
34	Missouri	4,541	a	85%	29,421	84%	35
35	Texas	4,539	b	85%	30,974	88%	29
36	Kentucky	4,349		82%	31,115	89%	28
37	Georgia	4,342	b	82%	28,758	82%	40
38	North Carolina	4,307	b	81%	29,108	83%	38
39	North Dakota	4,257	a	80%	25,211	72%	49
40	South Carolina	4,231	b	80%	29,151	83%	37
41	South Dakota	4,056	c	76%	24,291	69%	51
42	Oklahoma	3,961	b	74%	26,355	75%	47
43	Arkansas	3,921	b	74%	28,013	80%	41
44	Louisiana	3,883	b	73%	26,074	74%	48
45	Arizona	3,874	b	73%	31,352	89%	26
46	New Mexico	3,870	b	73%	26,463	75%	46
47	Tennessee	3,709	b	70%	29,313	84%	36
48	Alabama	3,569		67%	27,490	78%	43
49	Idaho	3,466		65%	27,011	77%	44
50	Mississippi	3,207	c	60%	24,367	69%	50
51	Utah	2,979	b	56%	26,997	77%	45
	U.S. AVERAGE	$5,319		100%	$35,104	100%	

*Expenditure figures correspond to the federal definition of current expenditures per member. a=preliminary or estimate; b=AFT estimate (based on data supplied by states when available). c=based primarily on December 1992 estimates reported by NCES.

Map 3

Current Expenditure Per Pupil 1992-93


▨ $6,000 and above
▨ $5,500 to $5,999
▨ $4,750 to $5,499
▨ $4,000 to $4,749
☐ Below $4,000

Map 4

1992 AFT Interstate Cost-Of-Living Index

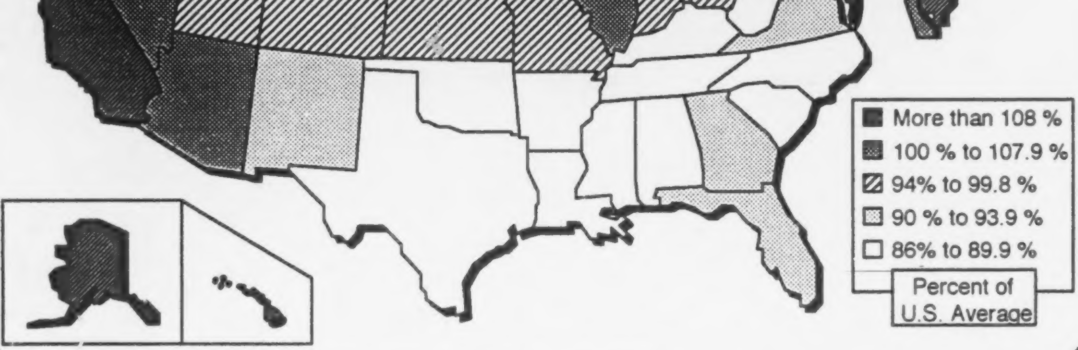

▨ More than 108 %
▨ 100 % to 107.9 %
▨ 94% to 99.8 %
▨ 90 % to 93.9 %
☐ 86% to 89.9 %
Percent of U.S. Average

TABLE I-11

TRENDS IN EXPENDITURE PER PUPIL (MEMBERSHIP), 1990-91 TO 1992-93

							Percent Change		
State	Expenditure Per Pupil* 1990-91	Rank	Expenditure Per Pupil 1991-92	Rank	Expenditure Per Pupil 1992-93	Rank	1990-91 to 1991-92	1991-92 to 1992-93	1990-91 to 1992-93
New Jersey	$8,062	1	$8,508	1	$9,081	1	5.5%	6.7%	12.6%
Alaska	7,502	4	8,012	2	8,273	2	6.8%	3.3%	10.3%
D.C.	7,928	2	8,007	3	7,810	3	1.0%	-2.5%	-1.5%
New York	7,510	3	7,695	4	7,767	4	2.5%	0.9%	3.4%
Connecticut	7,306	5	7,361	5	7,410	5	0.8%	0.7%	1.4%
Vermont	6,255	6	6,805	6	7,046	6	8.8%	3.5%	12.6%
Pennsylvania	6,048	7	6,495	7	6,981	7	7.4%	7.5%	15.4%
Massachusetts	5,881	9	5,995	9	6,295	8	1.9%	5.0%	7.0%
Rhode Island	5,934	8	6,146	8	6,266	9	3.6%	2.0%	5.6%
Wisconsin	5,382	13	5,788	11	6,130	10	7.6%	5.9%	13.9%
Maryland	5,852	10	5,864	10	5,923	11	0.2%	1.0%	1.2%
Oregon	5,195	15	5,455	16	5,881	12	5.0%	7.8%	13.2%
Delaware	5,358	14	5,690	12	5,763	13	6.2%	1.3%	7.6%
Michigan	5,394	11	5,529	14	5,644	14	2.5%	2.1%	4.6%
Wyoming	5,390	12	5,570	13	5,620	15	3.3%	0.9%	4.3%
Illinois	4,904	19	5,198	19	5,510	16	6.0%	6.0%	12.4%
New Hampshire	5,140	16	5,464	15	5,507	17	6.3%	0.8%	7.1%
Minnesota	4,946	18	5,392	17	5,457	18	9.0%	1.2%	10.3%
West Virginia	4,571	30	4,853	25	5,390	19	6.2%	11.1%	17.9%
Maine	4,978	17	5,299	18	5,352	20	6.5%	1.0%	7.5%
Hawaii	4,820	22	4,996	20	5,296	21	3.7%	6.0%	9.9%
Virginia	4,898	20	4,996	21	5,244	22	2.0%	5.0%	7.1%
Washington	4,652	26	4,910	22	5,213	23	5.5%	6.2%	12.1%
Ohio	4,747	23	4,887	23	5,143	24	2.9%	5.2%	8.3%
Nebraska	4,735	24	4,849	26	5,110	25	2.4%	5.4%	7.9%
Kansas	4,434	31	4,685	29	5,083	26	5.6%	8.5%	14.6%
Montana	4,706	25	4,808	27	4,929	27	2.2%	2.5%	4.7%
Florida	4,859	21	4,872	24	4,905	28	0.3%	0.7%	0.9%
Iowa	4,418	32	4,639	32	4,824	29	5.0%	4.0%	9.2%
Colorado	4,603	27	4,695	28	4,817	30	2.0%	2.6%	4.7%
Indiana	4,588	29	4,655	30	4,795	31	1.5%	3.0%	4.5%
California	4,595	28	4,650	31	4,627	32	1.2%	-0.5%	0.7%
Nevada	4,294	33	4,509	33	4,553	33	5.0%	1.0%	6.0%
Missouri	4,271	34	4,452	34	4,541	34	4.2%	2.0%	6.3%
Texas	4,048	37	4,256	36	4,539	35	5.1%	6.7%	12.1%
Kentucky	3,897	40	4,244	38	4,349	36	8.9%	2.5%	11.6%
Georgia	4,171	36	4,254	37	4,342	37	2.0%	2.1%	4.1%
North Carolina	4,181	35	4,265	35	4,307	38	2.0%	1.0%	3.0%
North Dakota	3,909	39	4,173	39	4,257	39	6.8%	2.0%	8.9%
South Carolina	4,008	38	4,068	40	4,231	40	1.5%	4.0%	5.6%
South Dakota	3,726	44	3,951	41	4,056	41	6.0%	2.7%	8.8%
Arkansas	3,461	47	3,807	45	3,921	42	10.0%	3.0%	13.3%
Louisiana	3,807	42	3,845	43	3,883	43	1.0%	1.0%	2.0%
Arizona	3,859	41	3,936	42	3,874	44	2.0%	-1.6%	0.4%
New Mexico	3,757	43	3,832	44	3,870	45	2.0%	1.0%	3.0%
Tennessee	3,521	46	3,602	47	3,709	46	2.3%	3.0%	5.3%
Alabama	3,429	48	3,402	48	3,569	47	-0.8%	4.9%	4.1%
Oklahoma	3,590	45	3,770	46	3,496	48	5.0%	-7.3%	-2.6%
Idaho	3,206	49	3,332	49	3,466	49	3.9%	4.0%	8.1%
Mississippi	3,007	50	3,054	50	3,207	50	1.6%	5.0%	6.7%
Utah	2,767	51	2,893	51	2,979	51	4.6%	3.0%	7.7%
U.S. AVERAGE	$4,890		$5,144		$5,319		5.2%	3.4%	8.8%

* Final tabulations of the U.S. Department of Education.

TABLE I–12

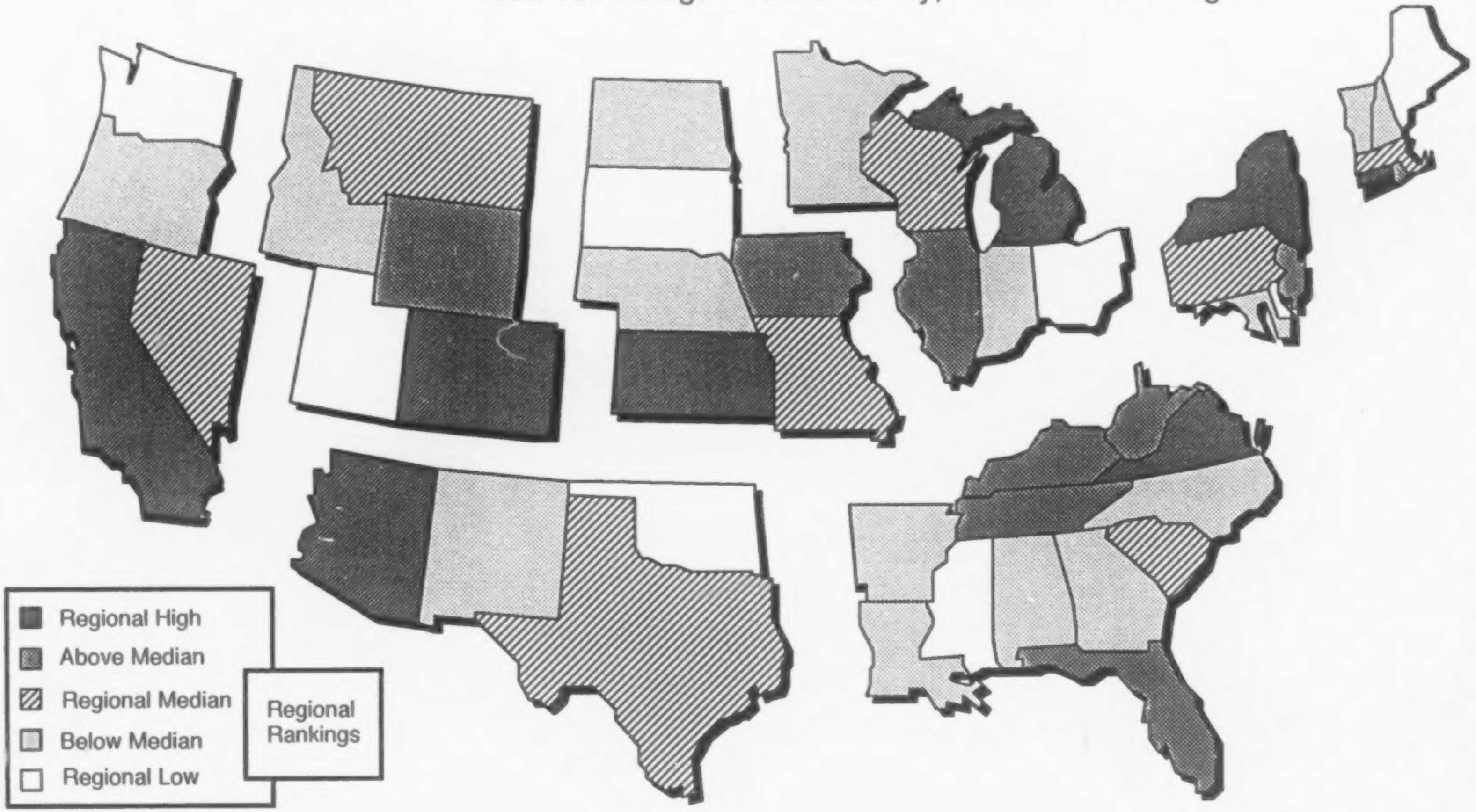
EXPENDITURES PER PUPIL AND THE AVERAGE TEACHER SALARY IN 1992–93 RANKED BY AVERAGE SALARY WITHIN REGION

State	Expenditures Per Pupil	Average Salary
NEW ENGLAND		
Connecticut	$7,410	$48,918
Rhode Island	6,266	40,548
Massachusetts	6,295	39,245
Vermont	7,046	35,328
New Hampshire	5,507	33,931
Maine	5,352	30,250
MIDEAST		
New York	7,767	44,999
New Jersey	9,081	43,355
Pennsylvania	6,981	41,515
D.C.	7,810	40,228
Maryland	5,923	38,753
Delaware	5,763	36,217
GREAT LAKES		
Michigan	5,644	42,256
Illinois	5,[illegible]10	38,701
Wisconsin	6,130	36,477
Indiana	4,795	35,068
Minnesota	5,457	35,093
Ohio	5,143	34,100
PLAINS		
Kansas	5,083	30,713
Iowa	4,824	30,124
Missouri	4,541	29,421
Nebraska	5,110	28,768
North Dakota	4,257	25,211
South Dakota	4,056	24,291
SOUTHWEST		
Arizona	3,874	31,352
Texas	4,539	30,974
New Mexico	3,870	26,463
Oklahoma	3,996	26,355

State	Expenditures Per Pupil	Average Salary
SOUTHEAST		
Virginia	$5,244	$32,896
Florida	4,905	31,172
Kentucky	4,349	31,115
West Virginia	5,390	30,301
Tennessee	3,709	29,313
South Carolina	4,231	29,151
North Carolina	4,307	29,108
Georgia	4,342	28,758
Arkansas	3,921	28,013
Alabama	3,569	27,490
Louisiana	3,883	26,074
Mississippi	3,207	24,367
ROCKY MOUNTAINS		
Colorado	4,817	33,541
Wyoming	5,620	30,317
Montana	4,929	27,617
Idaho	3,466	27,011
Utah	2,979	26,997
FAR WEST		
California	4,627	39,922
Nevada	4,553	37,360
Oregon	5,881	35,883
Washington	5,213	35,870
Alaska	8,273	46,799
Hawaii	5,296	36,472
U.S. AVERAGE	$5,319	****

Map 5

1992-93 Average Teacher Salary, Ranked Within Region


■ Regional High
▩ Above Median
▨ Regional Median
▤ Below Median
□ Regional Low
Regional Rankings

II. Trends in Teacher Salaries Compared to Other Workers and Professions

The economic downturn of the early 1990's shows up in the teacher salary data. The 3.2 percent increase in average salaries in both 1992 and 1993 are the smallest gains in any year of the 35 years of data in this report. However, teachers made very modest gains against inflation in both 1992 and 1993. The inflation-adjusted salary of teachers rose just $56 in 1993, for a total of $1,700 in real salary growth since 1986, the year when teacher purchasing power was finally restored to 1972 levels.

Trends in Teacher Salaries Compared to Inflation. The purchasing power of teachers, measured in 1993 dollars according to the Consumer Price Index for All Urban Consumers, has risen $8,000 since 1981. Teachers, however, gained just $56 in 1992. Over the past seven years, teacher purchasing power grew by just $243 a year.

As shown in Table II-1 and Figure II-3, purchasing power for teachers has been restored to the peak purchasing power period of 1971-73 with about $1,700 to spare. In 1956, the average teacher salary was $21,473 (in 1993 dollars)--about two-thirds of the current salary level and less than the average beginning teacher salary of $22,505 in 1993. During the period of rapid inflation in the mid-1970's and early 1980's, as shown in Figure II-1, the average teacher salary increase fell below the inflation rate at the onset of inflation but increased as inflation waned. The substantial real wage gains experienced by teachers in the early 1980's and mid-1980's may be a product of this adjustment lag. The gap between the increase in the average teacher salary (3.2%) and the estimated inflation rate (3.0%) is the smallest gap experienced during the previous decade except for 1990. During 1990, the economic response to the Iraqi invasion of Kuwait pushed the inflation rate to 6.1 percent, slightly above the 5.8 percent growth in teacher salaries. Once again, the sudden drop-off in inflation in 1991 resulted in substantial real growth in teacher salaries during that year.

Trends in Teacher Salaries Compared to the Standard of Living. Merely adjusting for inflation does not adequately describe the financial well-being of teachers. Had teacher purchasing power remained the same since 1956 (at $21,473), teachers would be earning approximately $8,000 less than the average worker in 1993. Few teachers would have remained in teaching, and few individuals would never chosen to teach as a career. While teacher salaries gained favorably on inflation during the early 1980's, the relative standard of living for teachers remained about the same in the 1980's, and well below levels in the 1960's and 1970's.

The ratio of the average teacher salary to the gross domestic product (an economic measure similar to the gross national product or GNP) per capita began the decade of the 1980's at 1.33--the lowest level in the three decades of data presented in Table II-1. By 1983, the ratio rose to 1.44 and has stayed at about this same level through 1993. Teachers enjoyed their highest relative standard of living in the 1960's with the ratio of the average teacher salary to per capita GDP ranging from 1.66 to 1.80. During the 1970's, the decade began with a ratio of 1.76, which declined rapidly to 1.37 in 1978-79.

Trends in Teacher Salaries Compared to the Average Annual Earnings of All Workers. The ratio of teacher salaries to the mean average annual earnings of the full-time, nonagricultural worker was 1.22 in 1992 as shown in Table II-2. This ratio is at its highest level ever during the past 35 years. The ratio has been as low as 1.00 in 1957 and as high as 1.14 in 1971 but fell to 1.01 as recently as 1981. Figure II-3 illustrates these trends.

Trends in Teacher Salaries Compared to the Average Annual Salaries of All Government Workers. Trends in government worker salaries tend to match trends in teacher salaries. Teachers outpaced government workers over the 1960's, with the ratio of teacher salaries to government worker salaries rising to 1.11 in 1968. During the 1970's, however, government workers fared much better than teachers and the ratio fell to 1.00 by 1982. By 1989, however, teachers gained a 13 percent advantage over all government workers that still remained in 1992.

Trends in Teacher Salaries Adjusted for Work Experience. Though teacher salaries are at the highest levels ever, the average teacher in 1992-93 had an estimated 15.8 years of experience, more experience than at any time over the past three decades. The size of the teaching force declined during six of the seven years between 1977 and 1983, while the average experience of teachers increased from 10.3 to 13.9 years. Clearly, the rapid rise in teacher salaries over the early years of the 1980's was due primarily to layoffs of low-paid teachers and minimal hiring of beginning teachers. The teacher experience effect has slowed over the past few years due to the near absence of layoffs and an increase in hiring. The educational attainment of teachers has increased at a rate commensurate with their experience. In 1975, less than 40 percent of teachers held a master's degree. In 1991, the comparable figure was about 53 percent.

With an estimated 15.8 years of experience, the average teacher earned $35,104 in 1992-93. During 1972, the average teacher earned $33,375 (in 1993 dollars), but had only 10.7 years of experience. If a year of experience yields about 2.4 percent more on the salary schedule, a teacher with 15.8 years of experience in 1972 would have earned approximately $37,522 (in 1993 dollars)--$2,500 more than teachers with 15.8 years of experience in 1993. Adjustments for other years are shown in Table II-3. Clearly, continued teacher dissatisfaction with their salaries seems legitimate from this perspective. The salary-experience data are taken from Table I-7, which shows that the typical state awards an average of $853 per year, or 2.4 percent of the average salary, for each year between the starting salary and the average salary.

Average Teacher Salaries Compared to Selected White-Collar Occupations. The relationship of salaries in other white-collar occupations to each other changed little over the past 30 years, as shown in Table II-4 and illustrated in Figure II-5. During the late 1980's, teacher salaries increased a little faster than earnings in other occupations. In 1992, for the first time in seven years, the average teacher salary grew slower than salaries in most other white-collar occupations (4th panel of Table II-4). The lawyers' average salary grew at an estimated 7.6 percent rate, chemists climbed 10.3 percent, and accountants and auditors experienced gains of 3.4 percent, about the same as teachers.

The job categories described in the tables and figures, such as Accountant "III" or Chemist "IV", contain the accountant or chemist who had earnings in the middle of the income distribution for all accountants or chemists. The figures in Table II-4 are the average of all people in that job category, such as Accountant III or Chemist IV. Lawyers earned nearly double the average teacher salary, chemists and engineers 50 to 60 percent more, and auditors and accountants about 10 to 20 percent more. Salaries in other white-collar occupations deteriorated relative to teacher salaries through the mid-1970's. Other white-collar occupations gained sharply on teachers from the mid-1970's until 1982, but in just the past ten years, all of this gain has been erased. In 1962, teachers earned less relative to all of the occupations listed in the tables compared to 1992. Some of the decline in earnings in other occupations relative to teachers can be traced to changes in the sample design in 1986, 1987 and 1989 that incorporated smaller firms into the sample.

Teacher Salaries Compared to Academic Salaries. Academic salaries have not maintained the same relationship with teacher salaries that private sector white-collar occupations have kept. The 34 percent salary advantage of assistant professors over teachers in 1963 declined continuously until 1988, when the advantage slipped to one percent (third panel of Table II-4). Salaries of assistant professors reported to the AUUP in the subsequent four years, however, rebounded sharply and increased by 25 percent over the past five years. Assistant professors now average a three percent higher salary than elementary and secondary teachers. While full professors still have an 81 percent advantage, this figure fell continuously from a 120 percent advantage in 1967 to the current 80% advantage in 1984. During the 1960's, full professors enjoyed higher real earnings than did Attorney III's. Compared to the 3.2 percent increase for teachers in 1993, full professors gained only 2.1 percent, while assistant professors experienced income growth of only 1.2 percent, the first time assistant professors have not kept pace with teachers since 1988.

Salaries of Non-teaching Personnel. The average teacher salary increase of 184 percent since 1975-76 has been more than the increase in any category of nonteaching personnel shown in Table II-5, except central office secretaries (up 187 percent) and about the same as instructional aides (up 185 percent). Though no data on age exist for occupations other than teaching, the closing of the teacher-administrator salary gap probably reflects the rapid increase in teacher experience over the 1980's as shown in Table II-3. Beginning teacher salaries, for example, rose only 170 percent, the same rate as high school principals. Adjusted for inflation, school personnel paid hourly have not experienced wage growth since 1985-86. In 1985-86, teacher aides made $8.20 per hour; now they make $8.51. Over the same period, custodian, cafeteria worker, and bus driver wages declined about 10 cents per hour.

During the 1992-93 school year, superintendents' salaries grew 2.1 percent, the same as the teacher salary growth rate of 2.1 percent reported by Educational Research

Service. Principal salaries also grew at a 2.1 percent rate. No other employee group experienced greater wage gains than teachers and administrators, except that custodian salaries improved 2.3 percent.

TABLE II–1

TRENDS IN TEACHER SALARIES COMPARED TO INFLATION AND GROSS DOMESTIC PRODUCT PER CAPITA

	Average Teacher Salary		Consumer Price Index		Average Teacher Salary (1993 Dollars)		Per Capita Gross Domestic Product		Teacher Salary To Per Capita GDP Ratio
	Salary	Change	CPI	Change	Salary	Change	GDP	Change	
1993	35,104	3.2%	146.2 *	3.0% *	35,104	0.2%	24,320	4.4%	1.44
1992	34,027	3.2%	141.9	2.9%	35,048	0.3%	23,296	3.7%	1.46
1991	32,960	5.1%	137.9	3.1%	34,934	2.0%	22,466	1.9%	1.47
1990	31,347	5.8%	133.8	6.1%	34,242	−0.3%	22,056	6.9%	1.42
1989	29,636	5.6%	126.1	4.6%	34,350	0.9%	20,629	5.7%	1.44
1988	28,071	5.5%	120.5	4.4%	34,048	1.0%	19,523	7.0%	1.44
1987	26,615	5.4%	115.4	4.4%	33,709	0.9%	18,254	5.6%	1.46
1986	25,260	7.2%	110.5	1.1%	33,411	6.0%	17,283	4.4%	1.46
1985	23,572	7.3%	109.3	3.8%	31,521	3.3%	16,559	5.6%	1.42
1984	21,974	6.9%	105.3	4.1%	30,500	2.8%	15,686	10.0%	1.40
1983	20,547	8.5%	101.2	3.7%	29,675	4.6%	14,265	6.4%	1.44
1982	18,945	9.1%	97.6	3.8%	28,370	5.1%	13,412	2.6%	1.41
1981	17,364	7.9%	94.0	8.9%	26,999	−1.0%	13,067	10.8%	1.33
1980	16,100	7.5%	86.3	12.5%	27,267	−4.4%	11,794	7.8%	1.37
1979	14,970	5.4%	76.7	13.3%	28,526	−7.0%	10,943	9.9%	1.37
1978	14,207	6.4%	67.7	9.0%	30,671	−2.4%	9,961	11.6%	1.43
1977	13,352	6.0%	62.1	6.7%	31,425	−0.6%	8,927	10.4%	1.50
1976	12,591	7.7%	58.2	4.9%	31,620	2.7%	8,088	10.5%	1.56
1975	11,690	8.5%	55.5	6.9%	30,785	1.4%	7,321	7.6%	1.60
1974	10,778	5.9%	51.9	12.3%	30,352	−5.7%	6,805	7.3%	1.58
1973	10,176	4.9%	46.2	8.7%	32,193	−3.5%	6,343	10.7%	1.60
1972	9,705	4.7%	42.5	3.4%	33,375	1.3%	5,732	8.7%	1.69
1971	9,269	7.3%	41.1	3.3%	32,962	3.9%	5,272	7.2%	1.76
1970	8,635	8.6%	39.8	5.6%	31,710	2.9%	4,919	4.0%	1.76
1969	7,952	7.1%	37.7	6.2%	30,829	0.9%	4,728	6.9%	1.68
1968	7,423	8.7%	35.5	4.7%	30,561	3.8%	4,423	8.2%	1.68
1967	6,830	5.3%	33.9	3.0%	29,447	2.2%	4,088	4.6%	1.67
1966	6,485	4.7%	32.9	3.5%	28,809	1.2%	3,909	2.6%	1.66
1965	6,195	3.3%	31.8	1.9%	28,473	1.4%	3,810	13.1%	1.63
1964	5,995	4.6%	31.2	1.0%	28,084	3.6%	3,369	5.6%	1.78
1963	5,732	3.9%	30.9	1.6%	27,112	2.3%	3,191	4.0%	1.80
1962	5,515	4.5%	30.4	1.3%	26,515	3.2%	3,068	6.0%	1.80
1961	5,275	5.6%	30.0	0.7%	25,699	4.9%	2,895	1.9%	1.82
1960	4,995	4.1%	29.8	1.4%	24,498	2.7%	2,841		1.76
1959	4,797	4.9%	29.4	1.7%	23,847	3.2%			
1958	4,571	7.8%	28.9	1.8%	23,117	6.0%			
1957	4,239	4.5%	28.4	2.9%	21,815	1.6%			
1956	4,055		27.6		21,473				

* Estimated

Figure II-1

Annual Rate of Increase in Teacher Salaries Compared to the Consumer Price Index

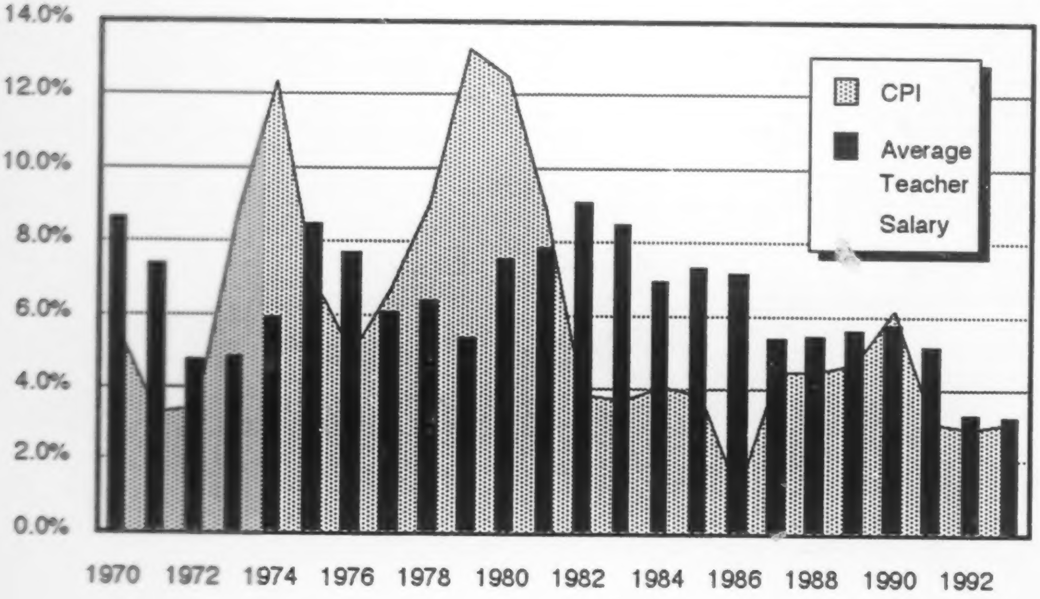


Figure II-2

Trends in Annual Earnings of Teachers, Government Workers, and All Workers

(Mean Annual Earnings in 1993 Dollars)

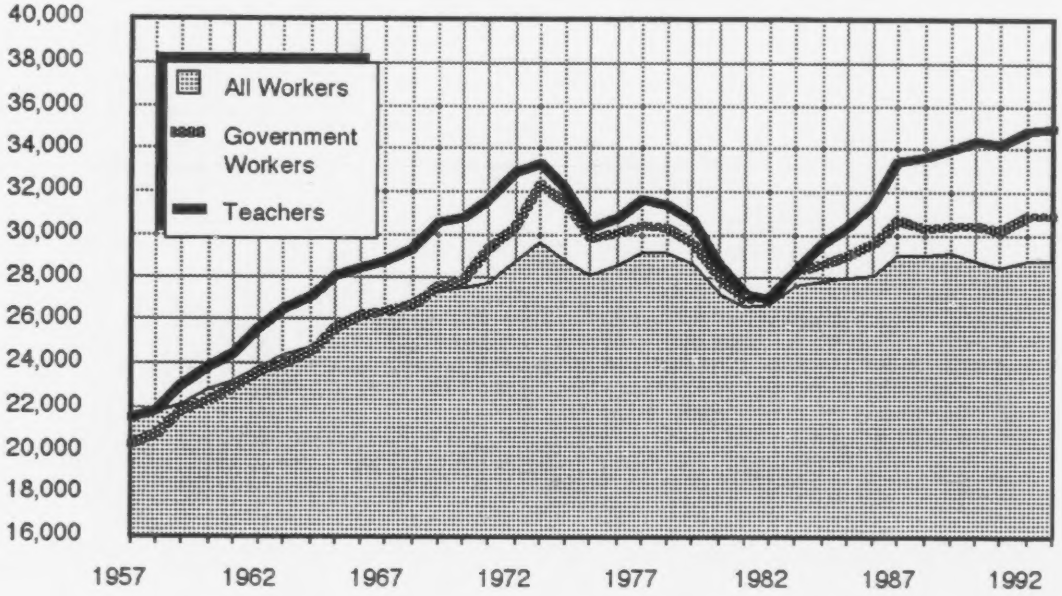


Figure II-3

Growth In Real Teacher Salaries Contrasts With Decline in the Ratio of Teacher Pay To GDP Per Capita

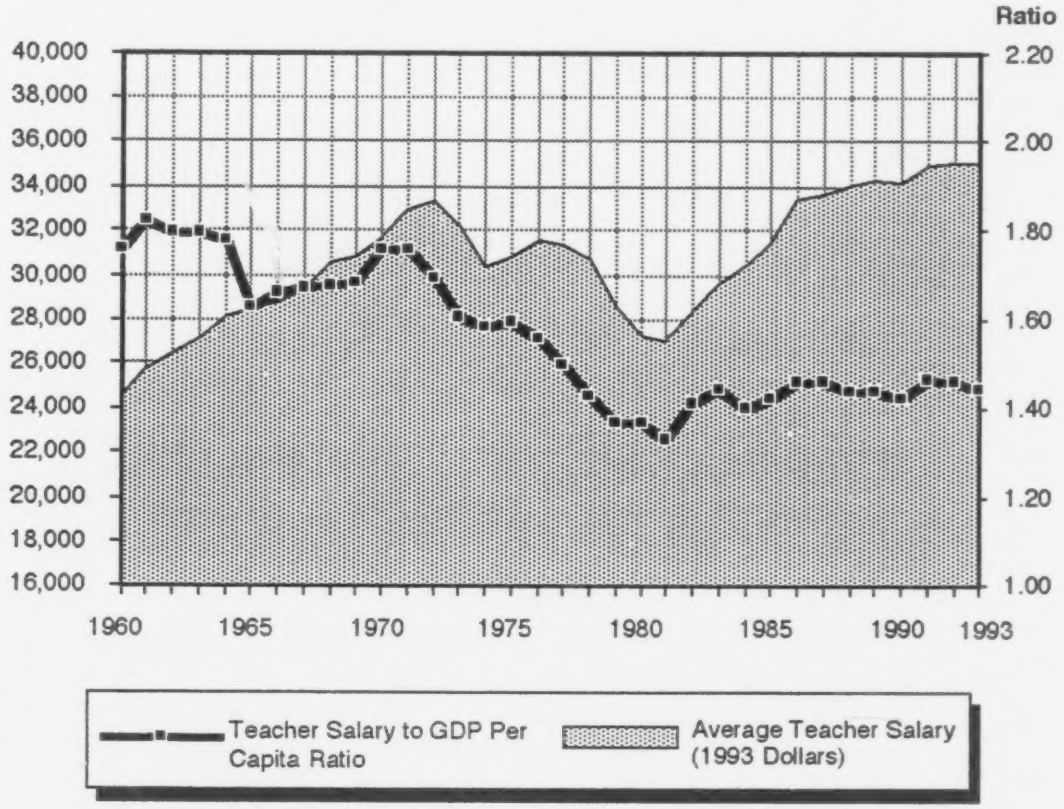


TABLE II–2

TRENDS IN TEACHER SALARIES COMPARED TO THE AVERAGE ANNUAL EARNINGS OF ALL WORKERS AND OF ALL GOVERNMENT WORKERS

		--------Mean Annual Earnings (1993 Dollars)--------						Ratio of Teacher Salary to Salary of:	
	CPI	Teachers		All Workers		Government Workers		All	Government
	Change	Salary	Change	Earnings	Change	Earnings	Change	Workers	Workers
1993	3.0% *	35,104	0.2%						
1992	2.9%	35,048	0.3%	28,813 *	–0.1%	30,943 *	0.1%	1.22	1.13
1991	3.1%	34,934	2.0%	28,841	1.5%	30,913	2.2%	1.21	1.13
1990	6.1%	34,242	–0.3%	28,418	–1.3%	30,259	–0.6%	1.20	1.13
1989	4.6%	34,350	0.9%	28,785	–1.3%	30,443	–0.2%	1.19	1.13
1988	4.4%	34,048	1.0%	29,168	0.5%	30,504	0.4%	1.17	1.12
1987	4.4%	33,709	0.9%	29,020	0.0%	30,388	–1.1%	1.16	1.11
1986	1.1%	33,411	6.0%	29,014	3.5%	30,733	3.8%	1.15	1.09
1985	3.8%	31,521	3.3%	28,038	0.4%	29,610	1.8%	1.12	1.06
1984	4.1%	30,500	2.8%	27,928	0.2%	29,089	1.3%	1.09	1.05
1983	3.7%	29,675	4.6%	27,878	0.8%	28,709	1.5%	1.06	1.03
1982	3.8%	28,370	5.1%	27,655	3.4%	28,283	4.3%	1.03	1.00
1981	8.9%	26,999	–1.0%	26,749	0.2%	27,123	0.6%	1.01	1.00
1980	12.5%	27,267	–4.4%	26,703	–2.2%	26,964	–3.4%	1.02	1.01
1979	13.3%	28,526	–7.0%	27,293	–4.6%	27,917	–5.9%	1.05	1.02
1978	9.0%	30,671	–2.4%	28,620	–1.7%	29,668	–2.4%	1.07	1.03
1977	6.7%	31,425	–0.6%	29,102	–0.2%	30,386	–0.4%	1.08	1.03
1976	4.9%	31,620	2.7%	29,148	2.3%	30,523	1.3%	1.08	1.04
1975	6.9%	30,785	1.4%	28,504	1.4%	30,122	0.7%	1.08	1.02
1974	12.3%	30,352	–5.7%	28,098	–2.4%	29,924	–5.0%	1.08	1.01
1973	8.7%	32,193	–3.5%	28,775	–2.7%	31,492	–2.8%	1.12	1.02
1972	3.4%	33,375	1.3%	29,576	2.7%	32,386	6.2%	1.13	1.03
1971	3.3%	32,962	3.9%	28,800	3.8%	30,505	3.8%	1.14	1.08
1970	5.6%	31,710	2.9%	27,746	1.0%	29,385	5.6%	1.14	1.08
1969	6.2%	30,829	0.9%	27,475	0.4%	27,839	0.8%	1.12	1.11
1968	4.7%	30,561	3.8%	27,377	2.0%	27,623	3.1%	1.12	1.11
1967	3.0%	29,447	2.2%	26,830	1.3%	26,795	1.7%	1.10	1.10
1966	3.5%	28,809	1.2%	26,478	1.0%	26,349	0.4%	1.09	1.09
1965	1.9%	28,473	1.4%	26,214	1.8%	26,246	2.2%	1.09	1.08
1964	1.0%	28,084	3.6%	25,750	3.9%	25,680	4.4%	1.09	1.09
1963	1.6%	27,112	2.3%	24,771	1.8%	24,592	2.6%	1.09	1.10
1962	1.3%	26,515	3.2%	24,324	2.3%	23,978	1.4%	1.09	1.11
1961	0.7%	25,699	4.9%	23,767	2.3%	23,646	3.2%	1.08	1.09
1960	1.4%	24,498	2.7%	23,236	1.9%	22,908	2.5%	1.05	1.07
1959	1.7%	23,847	3.2%	22,812	3.2%	22,341	2.2%	1.05	1.07
1958	1.8%	23,117	6.0%	22,101	1.6%	21,863	5.1%	1.05	1.06
1957	2.9%	21,815	1.6%	21,745	1.4%	20,794	2.7%	1.00	1.05
1956		21,473		21,449		20,254		1.00	1.06

* Estimated

TABLE II-3

TRENDS IN TEACHER SALARIES RELATED TO TEACHER EXPERIENCE

	Public K-12 Teachers		Average	Difference From 1993	Salary Effect* (1993 Dollars)		Average Salary (1993 Dollars)	Adjusted Average Salary
	(Thous.)	Change	Experience	Levels	Dollars	Percent		
1993	2,461	1.2%	15.8	0.0	0	0.0%	35,104	35,104
1992	2,433	0.1%	15.6	-0.2	163	0.5%	35,048	35,210
1991	2,431	1.7%	15.4	-0.4	325	0.9%	34,934	35,259
1990	2,391	1.5%	15.2	-0.6	488	1.4%	34,242	34,730
1989	2,356	1.4%	15.0	-0.8	650	1.9%	34,350	35,000
1988	2,323	1.9%	14.8	-1.0	813	2.4%	34,048	34,861
1987	2,279	1.6%	14.7	-1.1	894	2.7%	33,709	34,603
1986	2,244	1.7%	14.6	-1.2	976	2.9%	33,411	34,387
1985	2,207	1.8%	14.4	-1.4	1,138	3.6%	31,521	32,659
1984	2,168	2.2%	14.2	-1.6	1,301	4.3%	30,500	31,801
1983	2,121	-0.2%	13.9	-1.9	1,545	5.2%	29,675	31,219
1982	2,125	-2.7%	13.6	-2.2	1,789	6.3%	28,370	30,159
1981	2,184	0.0%	13.2	-2.6	2,114	7.8%	26,999	29,112
1980	2,183	-1.0%	12.2	-3.6	2,927	10.7%	27,267	30,194
1979	2,206	-0.1%	11.5	-4.3	3,496	12.3%	28,526	32,022
1978	2,209	1.1%	11.0	-4.8	3,902	12.7%	30,671	34,574
1977	2,186	-0.5%	10.5	-5.3	4,309	13.7%	31,425	35,734
1976	2,196	1.9%	10.0	-5.8	4,715	14.9%	31,620	36,335
1975	2,155	1.0%	10.1	-5.7	4,634	15.1%	30,785	35,419
1974	2,133	1.4%	10.3	-5.5	4,472	14.7%	30,352	34,824
1973	2,103	1.9%	10.5	-5.3	4,309	13.4%	32,193	36,501
1972	2,063	0.4%	10.7	-5.1	4,146	12.4%	33,375	37,522
1971	2,055	2.1%	11.0	-4.8	3,902	11.8%	32,962	36,864
1970	2,013	4.0%	11.2	-4.6	3,740	11.8%	31,710	35,450
1969	1,935	4.3%	11.4	-4.4	3,577	11.6%	30,829	34,406
1968	1,855	3.7%	11.6	-4.2	3,415	11.2%	30,561	33,976
1967	1,789	4.6%	11.8	-4.0	3,252	11.0%	29,447	32,699
1966	1,710	3.8%	12.0	-3.8	3,089	10.7%	28,809	31,899
1965	1,648	4.4%	12.2	-3.6	2,927	10.3%	28,473	31,400
1964	1,578	4.6%	12.4	-3.4	2,764	9.8%	28,084	30,848
1963	1,508	3.2%	12.6	-3.2	2,602	9.6%	27,112	29,714
1962	1,461	3.8%	12.8	-3.0	2,439	9.2%	26,515	28,954
1961	1,408		13.0	-2.8	2,276	8.9%	25,699	27,976

* Based on data in Table I-7, one year of experience is associated with $853 (1993 dollars), or 2.3% of the average 1993 salary.

Source: Experience data for 1961, 1966, 1971, 1976, 1981, 1986 and 1991 from National Education Association, Status of the American Public School Teacher, 1990-91, copyright 1992 by the NEA (All Rights Reserved). Experience data for intervening years between 1961 and 1986 are interpolations. Data for 1987 to 1993 is estimated. K-12 teacher count from U.S. Department of Education, Projection of Education Statistics to 2003, 1992.

Figure II-4

The Average Teacher Salary Compared to the Average Experience Level of Teachers

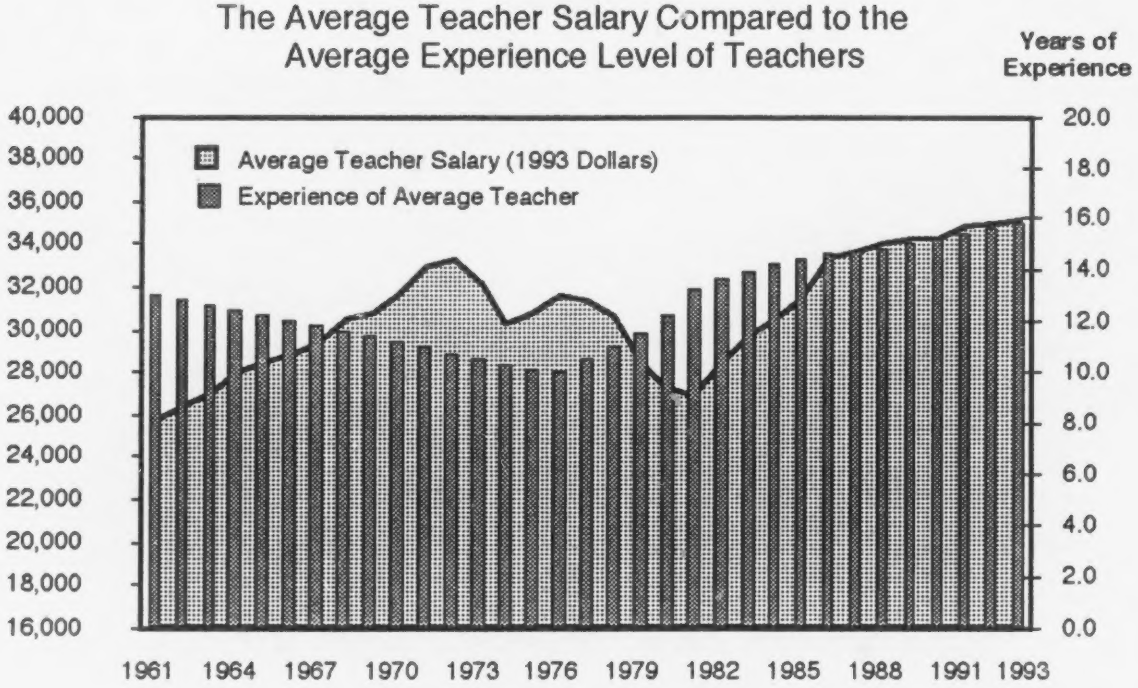


Figure II-5

Trends in Annual Earnings of Teachers, Controlling For Work Experience

(Mean Annual Earnings in 1993 Dollars)

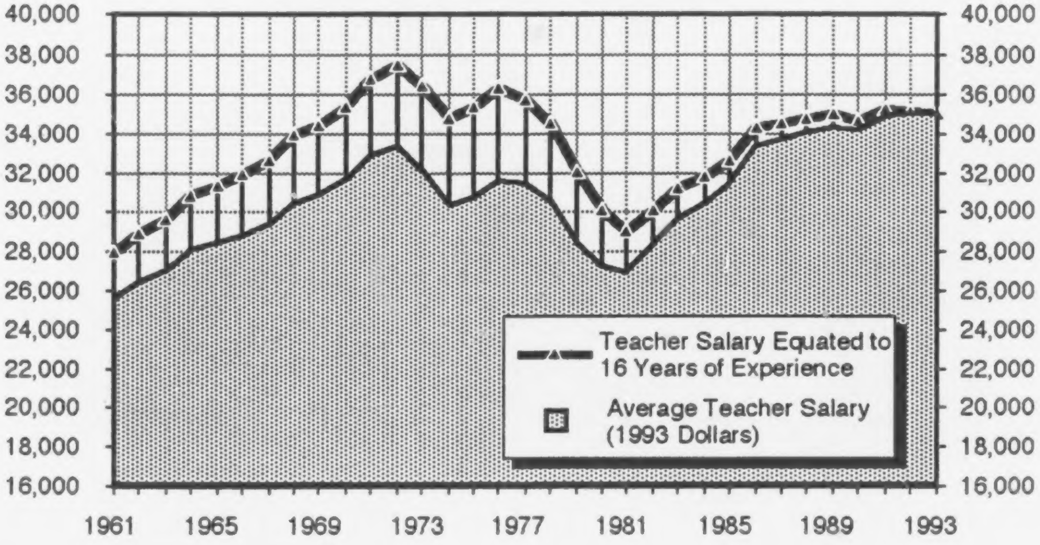


TABLE II-4

TRENDS IN TEACHER SALARIES COMPARED TO THE AVERAGE ANNUAL SALARIES OF SELECTED WHITE-COLLAR OCCUPATIONS

	Mean Teacher Salary	Account-ant III	Auditor III	Attorney III	Chemist IV	Engineer IV	Full Prof. Public Doctoral	Assistant Prof. Public Com-prehensive
1993	35,104						63,250	36,160
1992 **	34,027	38,192	40,641	66,271	56,229	52,784	61,950	35,730
1991	32,960	36,919	39,286	61,568	50,962	51,315	60,450	34,460
1990	31,347	35,489	37,589	59,087	49,065	49,365	57,520	32,730
1989	29,636	34,134	36,007	57,172	47,081	47,291	54,240	30,900
1988 *	28,071	33,028	34,765	55,407	45,760	45,680	51,080	28,380
1987 *	26,615	32,074	33,302	52,158	43,480	44,360	48,740	27,520
1986 *	25,260	31,143	32,121	50,119	41,548	42,667	45,600	26,000
1985	23,572	30,037	31,246	47,742	39,418	40,991	42,600	24,400
1984	21,974	28,721	30,209	44,743	37,643	39,005	39,800	23,000
1983	20,547	27,346	28,245	42,271	35,439	36,726	38,200	22,000
1982	18,945	25,673	26,502	39,649	34,047	34,443	35,700	20,800
1981	17,364	23,545	24,401	36,373	30,801	31,352	32,900	19,300
1980	16,100	21,299	22,026	33,034	27,681	28,486	30,100	17,800
1979	14,970	19,468	20,303	29,644	25,459	25,989	28,200	16,600
1978	14,207	18,115	18,756	27,738	23,532	23,972	26,400	15,900
1977	13,352	16,545	17,108	25,460	21,674	22,072	25,200	15,700
1976	12,591	15,428	16,059	24,205	20,429	20,749	24,200	14,600
1975	11,690	14,458	15,334	22,558	19,204	19,443	22,700	13,900
1974	10,778	13,285	14,341	21,082	17,283	17,929	21,600	13,100
1972	9,705	11,879	12,881	18,392	15,670	16,159	19,800	11,800
1970	8,635	10,686	11,475	16,884	14,218	14,695	18,100	10,800
1968	7,423	9,367	9,977	15,283	12,751	13,095	16,100	9,500
1966	6,485	8,328	8,904	14,052	11,448	11,784	14,100	8,300
1964	5,995	7,908	8,520	12,816	10,632	11,016	12,500	7,700
1962	5,515	7,416	7,932	11,844	9,936	10,248	na	na
(1993 DOLLARS)								
1993	35,104						63,250	36,160
1992 **	35,048	39,338	41,860	68,259	57,916	54,367	63,809	36,802
1991	34,934	39,130	41,638	65,254	54,013	54,388	64,070	36,523
1990	34,242	38,767	41,061	64,544	53,596	53,924	62,832	35,753
1989	34,350	39,563	41,734	66,266	54,570	54,813	62,867	35,815
1988 *	34,048	40,060	42,167	67,204	55,503	55,406	61,956	34,423
1987 *	33,709	40,623	42,178	66,059	55,069	56,183	61,730	34,855
1986 *	33,411	41,192	42,486	66,292	54,955	56,435	60,315	34,390
1985	31,521	40,166	41,782	63,841	52,710	54,814	56,965	32,628
1984	30,500	39,865	41,930	62,104	52,249	54,139	55,243	31,924
1983	29,675	39,494	40,793	61,049	51,182	53,041	55,170	31,773
1982	28,370	38,446	39,687	59,375	50,986	51,579	53,461	31,148
1981	26,999	36,609	37,940	56,555	47,891	48,748	51,155	30,009
1980	27,267	36,072	37,303	55,946	46,880	48,244	50,977	30,146
1979	28,526	37,098	38,689	56,489	48,514	49,524	53,737	31,632
1978	30,671	39,108	40,492	59,883	50,803	51,753	56,995	34,326
1977	31,425	38,940	40,265	59,922	51,011	51,948	59,310	36,951
1976	31,620	38,744	40,329	60,786	51,303	52,107	60,773	36,665
1975	30,785	38,075	40,381	59,406	50,573	51,202	59,780	36,605
1974	30,352	37,412	40,386	59,370	48,671	50,490	60,828	36,891
1972	33,375	40,852	44,298	63,250	53,889	55,571	68,092	40,580
1970	31,710	39,242	42,139	62,003	52,213	53,964	66,468	39,661
1968	30,561	38,565	41,076	62,922	52,497	53,913	66,285	39,112
1966	28,809	36,997	39,556	62,425	50,857	52,350	62,639	36,872
1964	28,084	37,045	39,912	60,037	49,806	51,605	58,556	36,071
1962	26,515	35,655	38,135	56,944	47,770	49,270		

** Except for teachers and professors, earnings are estimated from increases in Current Population Survey data.

* See note on next page.

(TABLE II–4 Continued)

RATIO OF SALARIES IN OTHER OCCUPATIONS TO TEACHER SALARIES

	Teachers	Account-ant III	Auditor III	Attorney III	Chemist IV	Engineer IV	Full Prof. Public Doctoral	Assistant Prof. Public Com-prehensive
1993	1.00						1.80	1.03
1992 **	1.00	1.12	1.19	1.95	1.65	1.55	1.82	1.05
1991	1.00	1.12	1.19	1.87	1.55	1.56	1.83	1.05
1990	1.00	1.13	1.20	1.88	1.57	1.57	1.83	1.04
1989	1.00	1.15	1.21	1.93	1.59	1.60	1.83	1.04
1988 *	1.00	1.18	1.24	1.97	1.63	1.63	1.82	1.01
1987 *	1.00	1.21	1.25	1.96	1.63	1.67	1.83	1.03
1986 *	1.00	1.23	1.27	1.98	1.64	1.69	1.81	1.03
1985	1.00	1.27	1.33	2.03	1.67	1.74	1.81	1.04
1984	1.00	1.31	1.37	2.04	1.71	1.78	1.81	1.05
1983	1.00	1.33	1.37	2.06	1.72	1.79	1.86	1.07
1982	1.00	1.36	1.40	2.09	1.80	1.82	1.88	1.10
1981	1.00	1.36	1.41	2.09	1.77	1.81	1.89	1.11
1980	1.00	1.32	1.37	2.05	1.72	1.77	1.87	1.11
1979	1.00	1.30	1.36	1.98	1.70	1.74	1.88	1.11
1978	1.00	1.28	1.32	1.95	1.66	1.69	1.86	1.12
1977	1.00	1.24	1.28	1.91	1.62	1.65	1.89	1.18
1976	1.00	1.23	1.28	1.92	1.62	1.65	1.92	1.16
1975	1.00	1.24	1.31	1.93	1.64	1.66	1.94	1.19
1974	1.00	1.23	1.33	1.96	1.60	1.66	2.00	1.22
1972	1.00	1.22	1.33	1.90	1.61	1.67	2.04	1.22
1970	1.00	1.24	1.33	1.96	1.65	1.70	2.10	1.25
1968	1.00	1.26	1.34	2.06	1.72	1.76	2.17	1.28
1966	1.00	1.28	1.37	2.17	1.77	1.82	2.17	1.28
1964	1.00	1.32	1.42	2.14	1.77	1.84	2.09	1.28
1962	1.00	1.34	1.44	2.15	1.80	1.86	na	na
ANNUAL PERCENT INCREASE								
1993	3.2%						2.1%	1.2%
1992 **	3.2%	3.4%	3.4%	7.6%	10.3%	2.9%	2.5%	3.7%
1991	5.1%	4.0%	4.5%	4.2%	3.9%	4.0%	5.1%	5.3%
1990	5.8%	4.0%	4.4%	3.3%	4.2%	4.4%	6.0%	5.9%
1989	5.6%	3.3%	3.6%	3.2%	2.9%	3.5%	6.2%	8.9%
1988 *	5.5%	3.0%	4.4%	6.2%	5.2%	3.0%	4.8%	3.1%
1987 *	5.4%	3.0%	3.7%	4.1%	4.7%	4.0%	6.9%	5.8%
1986 *	7.2%	3.7%	2.8%	5.0%	5.4%	4.1%	7.0%	6.6%
1985	7.3%	4.6%	3.4%	6.7%	4.7%	5.1%	7.0%	6.1%
1984	6.9%	5.0%	7.0%	5.8%	6.2%	6.2%	4.2%	4.5%
1983	8.5%	6.5%	6.6%	6.6%	4.1%	6.6%	7.0%	5.8%
1982	9.1%	9.0%	8.6%	9.0%	10.5%	9.9%	8.5%	7.8%
1981	7.9%	10.5%	10.8%	10.1%	11.3%	10.1%	9.3%	8.4%
1980	7.5%	9.4%	8.5%	11.4%	8.7%	9.6%	6.7%	7.2%
1979	5.4%	7.5%	8.2%	6.9%	8.2%	8.4%	6.8%	4.4%
1978	6.4%	9.5%	9.6%	8.9%	8.6%	8.6%	4.8%	1.3%
1977	6.0%	7.2%	6.5%	5.2%	6.1%	6.4%	4.1%	7.5%
1976	7.7%	6.7%	4.7%	7.3%	6.4%	6.7%	6.6%	5.0%
1975	8.5%	8.8%	6.9%	7.0%	11.1%	8.4%	5.1%	6.1%
1974	5.9%	6.5%	5.7%	7.8%	7.1%	5.3%	5.4%	4.8%
1972	4.7%	4.4%	5.3%	5.0%	4.2%	4.0%	3.1%	3.5%
1970	8.6%	6.6%	7.0%	6.3%	6.4%	5.8%	5.8%	6.9%
1968	8.7%	5.5%	5.6%	6.0%	5.9%	5.4%	7.3%	10.5%
1966	4.7%	2.5%	1.8%	3.0%	4.3%	3.6%	6.8%	5.1%
1964	4.6%	3.1%	3.3%	4.2%	3.7%	2.7%	5.9%	2.7%
1962	4.5%	3.0%	2.6%	2.1%	0.8%	4.5%	na	na

* The Professional, Technical, Administrative and Clerical survey is not exactly comparable in 1986,1987 and 1988. Prior to 1986 the survey included firms with at least 100 employees. In 1986 the minimum fell to 50, in 1987 the minimum was 20, and in 1988 and subsequent years, the minimum sized established was restored to 50 employee Small firms tend to pay less.

Figure II-6

Trends In The Average Salaries In Teaching
And In Selected White-Collar Occupations
(1993 Dollars)

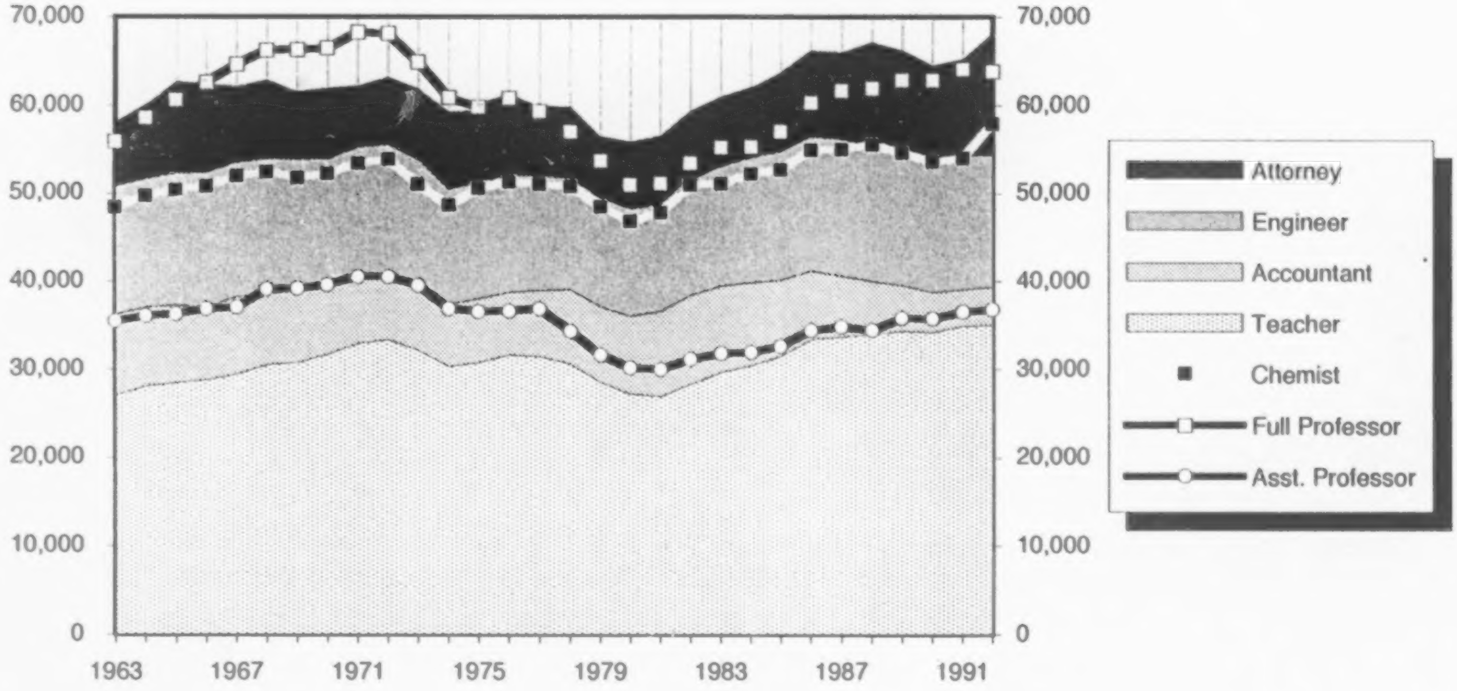


Table II-5

SALARIES OR EARNINGS OF NONTEACHING SCHOOL PERSONNEL, 1975–76 TO 1992–93

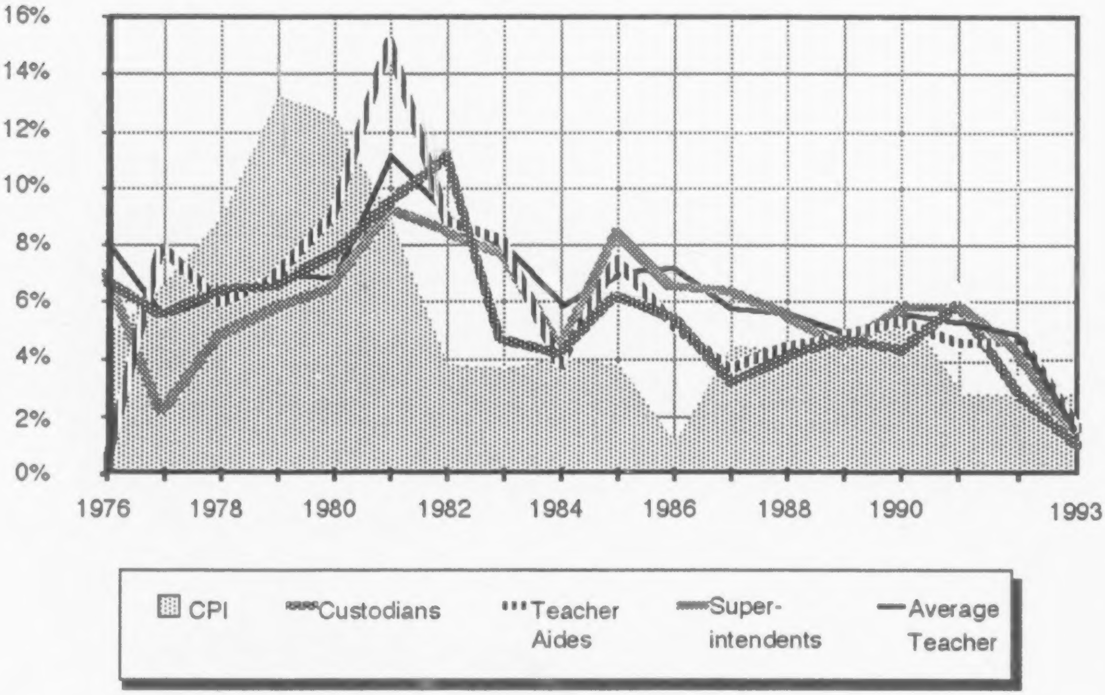
	1975-76	1979-80	1981-82	1983-84	1985-86	1987-88	1989-90	1991-92	1992-93	1975-76 To 1992-93
Teachers-Average*	$12,437	$15,913	$19,275	$22,039	$25,276	$28,230	$31,276	$34,565	$35,291	$22,854
Teachers-Beginning*	8,611	10,657	12,595	14,278	16,692	18,657	20,625	22,710	23,271	14,660
Superintendents	32,527	39,344	46,664	52,483	60,707	68,147	75,425	83,342	85,120	52,593
H.S. Principals	23,306	29,207	34,776	39,334	43,793	50,512	55,722	61,768	63,054	39,748
Secretaries										
Central Office	7,929	10,331	12,718	14,366	16,383	18,220	20,038	22,309	22,770	14,841
School Building	6,521	8,348	10,301	11,613	13,233	14,749	16,184	17,784	18,104	11,583
Hourly Workers										
Instructional Aides	$2.92	$3.89	$4.88	$5.48	$6.20	$6.72	$7.43	$8.15	$8.31	$5.39
Custodians	3.78	4.88	5.95	6.49	7.28	7.82	8.54	9.35	9.51	5.73
Cafeteria Workers	2.83	3.78	4.57	5.09	5.76	6.23	6.77	7.39	7.56	4.73
Bus Drivers	4.04	5.21	6.26	6.89	7.72	8.31	9.21	10.04	10.15	6.11
ANNUAL PERCENT INCREASE										
Teachers-Average*	8.1%	6.8%	9.0%	5.9%	7.2%	5.6%	5.6%	5.0%	2.1%	183.8%
Teachers-Beginning*	6.9%	5.9%	7.9%	5.5%	7.8%	5.6%	5.4%	4.4%	2.5%	170.2%
Superintendents	7.0%	6.6%	8.5%	4.4%	6.6%	5.5%	5.9%	4.3%	2.1%	161.7%
H.S. Principals	1.8%	6.5%	7.9%	4.6%	4.0%	5.5%	5.2%	4.5%	2.1%	170.5%
Secretaries										
Central Office	8.3%	8.1%	9.9%	5.3%	6.8%	6.0%	5.2%	4.7%	2.1%	187.2%
School Building	7.9%	7.4%	10.1%	5.5%	5.8%	5.8%	5.3%	4.9%	1.8%	177.6%
Hourly Workers										
Instructional Aides	0.3%	9.0%	8.9%	3.8%	5.3%	4.5%	5.4%	4.9%	2.0%	184.6%
Custodians	6.8%	7.7%	11.2%	4.2%	5.5%	4.1%	4.3%	3.3%	1.7%	151.6%
Cafeteria Workers	8.4%	8.6%	9.6%	4.5%	6.3%	5.2%	3.2%	2.8%	2.3%	167.1%
Bus Drivers	7.7%	5.7%	8.9%	5.0%	6.2%	3.1%	4.9%	5.5%	1.1%	151.2%
1993 DOLLARS										
Teachers-Average*	$31,242	$26,958	$28,873	$30,599	$33,442	$34,251	$34,175	$35,612	$35,291	$4,049
Teachers-Beginning*	21,631	18,054	18,867	19,824	22,085	22,636	22,536	23,398	23,271	1,640
Superintendents	81,709	66,652	69,900	72,868	80,320	82,681	82,415	85,868	85,120	3,411
H.S. Principals	58,545	49,479	52,093	54,612	57,942	61,285	60,886	63,640	63,054	4,509
Secretaries										
Central Office	19,918	17,502	19,051	19,946	21,676	22,106	21,895	22,985	22,770	2,852
School Building	16,381	14,142	15,430	16,124	17,508	17,895	17,684	18,323	18,104	1,723
Hourly Workers										
Instructional Aides	$7.34	$6.59	$7.31	$7.61	$8.20	$8.15	$8.12	$8.40	$8.31	$0.97
Custodians	9.50	8.27	8.91	9.01	9.63	9.49	9.33	9.63	9.51	0.01
Cafeteria Workers	7.11	6.40	6.85	7.07	7.62	7.56	7.40	7.61	7.56	0.45
Bus Drivers	10.15	8.83	9.38	9.57	10.21	10.08	10.06	10.34	10.15	0.00

Data Source: Educational Research Service.

* Average and beginning teacher salaries use ERS figures, and differ slightly from AFT data reported elsewhwere.

Figure II-7

Annual Rate of Increase in Teacher Salaries and Earnings for Selected Nonteaching Positions



III. Beginning Teacher Salaries, the Hiring of Beginning and Reentering Teachers and Teacher Retirement

Beginning teacher salaries received great attention during the 1980's. The average beginning teacher salary reported in this survey is $22,506 for 1992-93, up just 3.0 percent from the previous year. The Educational Research Service, in its annual survey of school districts across the nation, reports a $22,854 figure for the average of the "lowest paid teacher," up 2.1 percent from the previous year. A wage survey by the Department of Defense of the 192 school districts serving cities with populations of more than 100,000 yielded an average beginning teacher salary of $23,701, up 2.4 percent from the previous year.

Beginning Teacher Salary by State. Thirty-eight states have now passed the $20,000 barrier for average beginning salaries. Alaska, Connecticut, and New Jersey have actual starting salaries in excess of $27,000 while only Mississippi, Louisiana, North Dakota, and Idaho report average starting salaries below $18,000. As shown in Table III-1, beginning teachers in West Virginia experienced double-digit salary jumps over beginning teachers in 1992-93. Only three other states experienced gains greater than six percent--Pennsylvania, Illinois and Kansas. The actual average beginning salary stands at 64.1 percent of the U.S. average. This ratio varied from a low of 55 percent in Rhode Island to 77 percent in Alabama. Southern states typically have higher starting salaries relative to the average salary.

Beginning Teacher Salary Trends Over Time. Despite the attention given to beginning teacher salaries in the 1980's, the beginning teacher finally overtook the 1972 inflation-adjusted beginning salary in 1991 (see Table III-2). In contrast, the inflation-adjusted average teacher salary overtook the 1972 level in 1986. The expected beginning salary of teachers in spring 1993 of $23,969 equals the comparable 1972 figure of $23,970. The trend data in Table III-2 use annual information collected by the Educational Research Service that is compiled by AFT to create the 20-year time series.

Trends in Beginning Teacher Salaries Relative to Expected Salaries of College Graduates in the Private Sector. Beginning offers in business for new college graduates in other white-collar occupations remain high compared to beginning teachers, ranging from 45 percent more for engineers to 15 percent more for liberal arts graduates in spring 1993. The earnings advantage of these white-collar occupations, however, is at about the same level as in 1974 and has changed little since 1988. Only accounting has shown a consistent decline in salaries relative to teachers. Combining the past two years, only liberal arts and business administration graduates had higher beginning salary growth than teachers. Table III-3 contains these data, and Figure III-1 graphs the relationship between starting salaries.

Starting salaries in other white-collar occupations show less stability among each other over time than do the average salaries. Private employers tend to make labor market adjustments through the hiring of, and salaries given to, beginning employees. As in the average salary comparison, beginning salaries in other occupations gained on teacher salaries from the mid-1970's until about 1982 (except for accounting, which has shown a slow but continuous decline relative to beginning teacher salaries through 1985).

New Hires Entering Teaching for the First Time. Newly available data from the Schools and Staffing Survey of the National Center for Education Statistics of the U.S. Department of Education show that about 3.8 percent of the teaching force were in their first year of *full-time* teaching in 1990-91 (see Table III-3). In 1987-88, 4.4 percent of the teaching force were in their first year of teaching. Less than one percent of the workforce represented inexperienced teachers in Delaware and the District of Columbia in 1990-91. On the other hand, inexperienced teachers accounted for more than five percent of the teaching force in Alaska, Hawaii, Idaho, Nevada, Oklahoma, South Dakota, Texas, and Washington. State-by-state figures should not be considered exact. Even though the Schools and Staffing Survey includes more than 50,000 public school teachers with larger samples in smaller states, some sampling error should be expected, especially in small states.

Anticipated Teacher Retirement. The Schools and Staffing Survey asked teachers what they expected to do during the next school year, and retirement was anticipated by 1.07 percent of the teachers in 1990-91. Three years earlier, only .87 percent of teachers anticipated retirement during the subsequent year as shown in Table III-3. The anticipated retirement rate was impressively consistent between the two years among states despite the likely sampling error, especially in small states. In Delaware, nearly six percent of teachers expected to retire under a well publicized early retirement program. In 1987-88, less than one percent of Delaware's teachers anticipated retirement. The zero retirement figure in West Virginia follows a massive retirement exodus in 1989-90 due to an early retirement program. No other state has an expected retirement rate greater than two percent except Iowa, at 2.13 percent. While a retirement rate of about one percent may appear low to some, the low figure probably shows that most teachers leave teaching prior to retirement for reasons including working in another profession, family care, and promotion to non-teaching positions in education. Although the SASS retirement figures reflect anticipated retirement rather than actual retirement rates, it has not been established if anticipated retirement underestimates or overestimates actual retirement rates.

Reentering Teachers. Much has been made of the hiring of experienced teachers, sometimes referred to as the reserve pool, to fill vacant positions. Ideally, the "reentering teacher" represents experienced teachers who did not teach the prior year. This concept may include reappointments after layoffs and reinstatements after maternity and sick leave. The data shown in Table III-4 indicate that the reserve pool of teachers was either very small or not utilized in 1990-91. Nationally, about 86 percent of teachers taught in the same school during 1989-90 and 1990-91. Another 5.2 percent switched schools within the same system. Half that amount, 2.4 percent, came from another school system. Less than one-half of one percent of teachers transferred from private school teaching to public schools. About half of one percent had been employed in non-teaching education occupations the prior year. Fully, 1.15 percent had been engaged primarily as substitute teachers the prior year. Those who had been students at colleges or universities made up 2.1 percent of the teacher workforce. Teachers engaged in all other activities during the prior school year (preschool teaching, postsecondary teaching, work outside education, caring for family members, retired from another job, and military service) comprised just 1.9 percent of the teaching force.

A large proportion of the 3.8 percent of teachers reporting no prior teaching experience are not entering teaching directly from colleges and universities. Thus, the reserve pool is made up of both experienced and inexperienced teachers. The reserve pool may have been overestimated due to the inclusion of teachers transferring from private schools and teachers from other school systems, in particular, teachers moving across state boundaries. A sizable portion of the reserve pool may be comprised of substitute teachers, and this group probably includes both experienced and inexperienced teachers in the sense that they have never held a full-time teaching position.

Within individual states, the rate of movement between schools in a single system ranges from 2.69 percent in Delaware to 9.5 percent in Washington, D.C. Movements across school systems ranged from a low of .46 percent in Massachusetts to 5.1 percent in Texas. Private school transfers range from no transfers in Oklahoma and New Mexico to 1.85 percent in Rhode Island. Former substitutes made up about 3 percent of the workforce in Rhode Island. Alaska, Idaho, Hawaii, Nevada, New Mexico, North Carolina, Oklahoma, South Dakota, Texas, and Utah each drew more than 3 percent of its teaching force from teachers newly out of college. Each of these states hired inexperienced teachers at a rate of greater than 5 percent, except New Mexico and North Carolina, which reported inexperienced teacher rates of more than 4 percent.

TABLE III–1

ACTUAL AVERAGE BEGINNING BA TEACHER SALARIES, 1991–92 AND 1992–93

	State	Beginning Salary 1992–93	Average Salary 1992–93	Beginning To Average Salary Ratio	Beginning Salary 1991–92	Increase in: Beginning Salary	Increase in: Average Salary
1	Alaska	$31,055	$46,799	66.4%	$29,633	4.8%	4.8%
2	New Jersey	27,655	43,355	63.8%	26,163	5.7%	5.7%
3	Connecticut	27,622	48,918	56.5%	26,461	3.0%	3.0%
4	New York	26,639 c	44,999	59.2%	26,375 c	3.8%	3.8%
5	Pennsylvania	26,575 b	41,515	64.0%	24,783	7.2%	7.2%
6	Illinois	25,177 a	38,701	65.1%	23,406	6.2%	6.2%
7	Hawaii	25,100	36,472	68.8%	24,208	5.8%	5.8%
9	Maryland	24,508	38,753	63.2%	24,330	-0.8%	-0.8%
8	California	23,980 a	39,922	60.1%	23,980	0.0%	0.0%
10	Michigan	23,856 b	42,256	56.5%	22,950 b	4.0%	4.0%
11	Nevada	23,664 f	37,360	63.3%	23,228 f	0.8%	0.8%
12	Massachusetts	23,375 b	39,245	59.6%	22,190 b	5.3%	5.3%
13	D.C.	23,305	40,228	57.9%	23,305	1.4%	1.4%
14	Wisconsin	22,889	36,477	62.7%	22,141	3.5%	3.5%
15	Virginia	22,856	32,896	69.5%	22,306	3.2%	3.2%
16	New Hampshire	22,750 b	33,931	67.0%	22,240 b	2.3%	2.3%
17	Oregon	22,571 f	35,883	62.9%	21,303 f	5.2%	5.2%
18	Delaware	22,377	36,217	61.8%	21,532	4.8%	4.8%
19	Rhode Island	22,350 b	40,548	55.1%	21,692	3.0%	3.0%
20	Arizona	22,150 b	31,352	70.6%	22,050 b	0.5%	0.5%
21	Minnesota	22,050 b	35,093	62.8%	21,611	1.9%	1.9%
22	Vermont	21,900 b	35,328	62.0%	20,857 b	5.0%	5.0%
23	Florida	21,607	31,172	69.3%	21,398	0.3%	0.3%
24	Indiana	21,503	35,068	61.3%	20,856	3.1%	3.1%
25	Washington	21,428	35,870	59.7%	20,889	4.6%	4.6%
26	Texas	21,411	30,974	69.1%	20,469 b	4.6%	4.6%
27	West Virginia	21,278	30,301	70.2%	19,278	10.7%	10.7%
28	Alabama	21,250 b	27,490	77.3%	20,850 b	1.9%	1.9%
29	Georgia	21,010	28,758	73.1%	20,500 b	2.2%	2.2%
30	Tennessee	20,982 b	29,313	71.6%	20,371	2.4%	2.4%
31	Missouri	20,745	29,421	70.5%	20,499	1.9%	1.9%
32	Kentucky	20,638	31,115	66.3%	20,559	0.8%	0.8%
33	Oklahoma	20,582	26,355	78.1%	19,291	4.2%	4.2%
34	Iowa	20,500 b	30,124	68.1%	19,873	3.2%	3.2%
35	Kansas	20,445 d	30,713	66.6%	18,913 f	6.6%	6.6%
36	South Carolina	20,381 a	29,151	69.9%	19,778	3.9%	3.9%
37	Arkansas	20,250 b	28,013	72.3%	19,825 b	2.1%	2.1%
38	Nebraska	20,237	28,768	70.3%	18,779	5.6%	5.6%
39	Wyoming	19,966 a	30,317	65.9%	19,925 a	-0.4%	-0.4%
40	North Carolina	19,820	29,108	68.1%	19,810	1.1%	1.1%
41	Colorado	19,776	33,541	59.0%	19,324	1.4%	1.4%
42	New Mexico	19,675	26,463	74.3%	19,499	0.8%	0.8%
43	Maine	19,350	30,250	64.0%	19,288	0.5%	0.5%
44	Ohio	19,082 a	34,100	56.0%	18,814	3.5%	3.5%
45	Montana	18,775 b	27,617	68.0%	18,600 b	0.1%	0.1%
46	South Dakota	18,471	24,291	76.0%	17,562	4.3%	4.3%
47	Utah	18,229	26,997	67.5%	17,786	2.5%	2.5%
48	Mississippi	17,960	24,367	73.7%	17,969	0.0%	0.0%
49	Louisiana	17,686 a	26,074	67.8%	17,686	0.5%	0.5%
50	North Dakota	17,267	25,211	68.5%	16,897	2.9%	2.9%
51	Idaho	17,164 b	27,011	63.5%	16,721	2.5%	2.5%
	U.S. Average	$22,505	$35,104	64.1%	$21,856	3.0%	3.2%
	Virgin Islands	20,225	31,326	64.6%	20,225	0.0%	0.0%

a=estimate or preliminary; b=AFT estimate; c=median; d=estimated to exclude fringe benefits (at 7%); e=includes incentive pay or career ladder stipends. f=includes 6% pension pick-up in Oregon, and 9.5% in Nevada.

TABLE III-2

BEGINNING TEACHER SALARIES AND EXPECTED SALARIES OF COLLEGE GRADUATES TO BE HIRED IN SPRING

	1972	1974	1976	1978	1980	1982	1984	1986	1988	1990	1991	1992	1993
Teaching*	$6,970	$8,058	$9,085	$10,062	$11,676	$13,539	$15,482	$17,667	$19,571	$21,743	$22,710	$23,271	$23,969 *
Engineering	10,608	11,556	13,980	16,680	20,136	25,128	26,844	28,512	29,820	32,304	34,344	35,064	34,668
Accounting	10,356	11,040	12,396	13,464	15,720	18,876	20,172	21,216	24,324	27,408	28,380	28,440	29,076
Sales/Marketing	8,904	9,864	11,316	12,636	15,936	18,072	19,620	20,688	22,848	27,828	26,964	27,144	27,132
Business Admin.	8,568	9,000	10,224	12,048	14,100	17,940	19,416	21,324	22,920	26,496	26,208	27,024	27,732
Liberal Arts	8,328	8,892	10,020	11,400	13,296	16,956	19,344	21,060	22,596	26,244	26,112	26,472	27,672
Chemistry	9,840	10,200	11,928	14,700	17,124	21,552	24,192	24,264	25,692	29,088	31,920	30,048	30,948
Math or Statistics	9,276	10,680	12,384	13,632	17,604	20,892	22,416	23,976	26,112	28,944	29,916	28,944	29,784
Economics/Finance	9,240	10,176	10,644	12,072	14,472	18,564	20,484	22,284	23,136	26,712	27,660	27,072	28,728
Computer Science		9,672		14,160	17,712	22,068	24,864	26,172	27,372	29,100	32,160	31,488	31,584
Others	9,264	10,344	11,820	13,848	17,544	20,460	23,136	26,724	26,316	28,728	34,344	28,068	33,828

(1993 Dollars)

	1972	1974	1976	1978	1980	1982	1984	1986	1988	1990	1991	1992	1993
Teaching	23,970	22,692	22,815	21,723	19,774	20,275	21,489	23,368	23,738	23,751	24,070	23,969	23,969
Engineering	36,481	32,543	35,108	36,010	34,102	37,629	37,260	37,712	36,169	35,287	36,400	36,116	34,668
Accounting	35,614	31,090	31,130	29,067	26,623	28,267	27,999	28,062	29,503	29,939	30,079	29,293	29,076
Sales/Marketing	30,621	27,778	28,418	27,280	26,989	27,063	27,233	27,364	27,713	30,398	28,579	27,958	27,132
Business Admin.	29,465	25,345	25,675	26,010	23,880	26,865	26,950	28,205	27,800	28,943	27,777	27,835	27,732
Liberal Arts	28,640	25,041	25,163	24,611	22,518	25,392	26,850	27,856	27,407	28,668	27,676	27,266	27,672
Chemistry	33,840	28,724	29,955	31,736	29,001	32,274	33,579	32,094	31,162	31,774	33,831	30,949	30,948
Math or Statistics	31,900	30,076	31,100	29,430	29,814	31,286	31,114	31,713	31,672	31,617	31,707	29,812	29,784
Economics/Finance	31,776	28,657	26,730	26,062	24,510	27,800	28,432	29,475	28,062	29,179	29,316	27,884	28,728
Computer Science	0	27,238	0	30,570	29,997	33,047	34,511	34,617	33,200	31,788	34,086	32,433	31,584
Others	30,931	28,282	28,819	29,026	28,847	29,747	31,178	34,318	30,990	30,467	35,340	28,068	33,828

* Estimated to be a 3.0 percent increase; ERS estimate of beginning teacher salary is used to maintain continuity of longitudinal data base.

(Table III-2 Continued)

RATIO OF EXPECTED SALARIES OF COLLEGE GRADUATES TO BE HIRED TO BEGINNING TEACHERS SALARIES

	1972	1974	1976	1978	1980	1982	1984	1986	1988	1990	1991	1992	1993
Teaching	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Engineering	1.52	1.43	1.54	1.66	1.72	1.86	1.73	1.61	1.52	1.49	1.51	1.51	1.45
Accounting	1.49	1.37	1.36	1.34	1.35	1.39	1.30	1.20	1.24	1.26	1.25	1.22	1.21
Sales/Marketing	1.28	1.22	1.25	1.26	1.36	1.33	1.27	1.17	1.17	1.28	1.19	1.17	1.13
Business Admin.	1.23	1.12	1.13	1.20	1.21	1.33	1.25	1.21	1.17	1.22	1.15	1.16	1.16
Liberal Arts	1.19	1.10	1.10	1.13	1.14	1.25	1.25	1.19	1.15	1.21	1.15	1.14	1.15
Chemistry	1.41	1.27	1.31	1.46	1.47	1.59	1.56	1.37	1.31	1.34	1.41	1.29	1.29
Math or Statistics	1.33	1.33	1.36	1.35	1.51	1.54	1.45	1.36	1.33	1.33	1.32	1.24	1.24
Economics/Finance	1.33	1.26	1.17	1.20	1.24	1.37	1.32	1.26	1.18	1.23	1.22	1.16	1.20
Computer Science		1.20		1.41	1.52	1.63	1.61	1.48	1.40	1.34	1.42	1.35	1.32
Others	1.33	1.28	1.30	1.38	1.50	1.51	1.49	1.51	1.34	1.32	1.51	1.21	1.41

ANNUAL PERCENT INCREASE IN BEGINNING TEACHER SALARIES AND EXPECTED SALARIES OF COLLEGE GRADUATES

	1974	1976	1978	1980	1982	1984	1986	1988	1990	1991	1992	1993
Teaching	7.0%	5.5%	5.7%	9.6%	7.5%	8.4%	5.8%	4.9%	5.4%	4.4%	2.5%	3.0%
Engineering	6.4%	9.7%	11.9%	10.1%	12.3%	4.0%	6.1%	3.1%	5.6%	6.3%	2.1%	-1.1%
Accounting	2.0%	4.3%	5.2%	6.6%	11.2%	3.6%	2.9%	8.0%	3.2%	3.5%	0.2%	2.2%
Sales/Marketing	2.2%	9.4%	7.7%	21.7%	4.9%	5.2%	0.3%	12.9%	8.8%	-3.1%	0.7%	-0.0%
Business Admin.	3.9%	4.7%	13.2%	4.7%	10.7%	4.6%	7.2%	4.3%	8.7%	-1.1%	3.1%	2.6%
Liberal Arts	2.3%	7.6%	9.7%	4.3%	10.3%	5.9%	11.9%	10.2%	7.8%	-0.5%	1.4%	4.5%
Chemistry	0.8%	7.1%	10.6%	8.3%	10.3%	8.3%	0.2%	-5.0%	2.1%	9.7%	-5.9%	3.0%
Math or Statistics	11.8%	4.0%	8.7%	21.7%	12.3%	3.3%	5.6%	2.2%	9.9%	3.4%	-3.2%	2.9%
Economics/Finance	7.3%	-3.1%	6.7%	10.7%	10.0%	3.8%	6.3%	5.2%	5.4%	3.5%	-2.1%	6.1%
Computer Science				14.8%	8.4%	7.1%	8.3%	4.2%	4.8%	10.5%	-2.1%	0.3%
Others	6.7%	13.0%	11.8%	20.5%	2.2%	9.4%	21.6%	19.9%	13.7%	19.5%	-18.3%	20.5%

Figure III-1

Trends In Beginning Salaries For
College Graduates In Selected Occupations
(1993 Dollars)

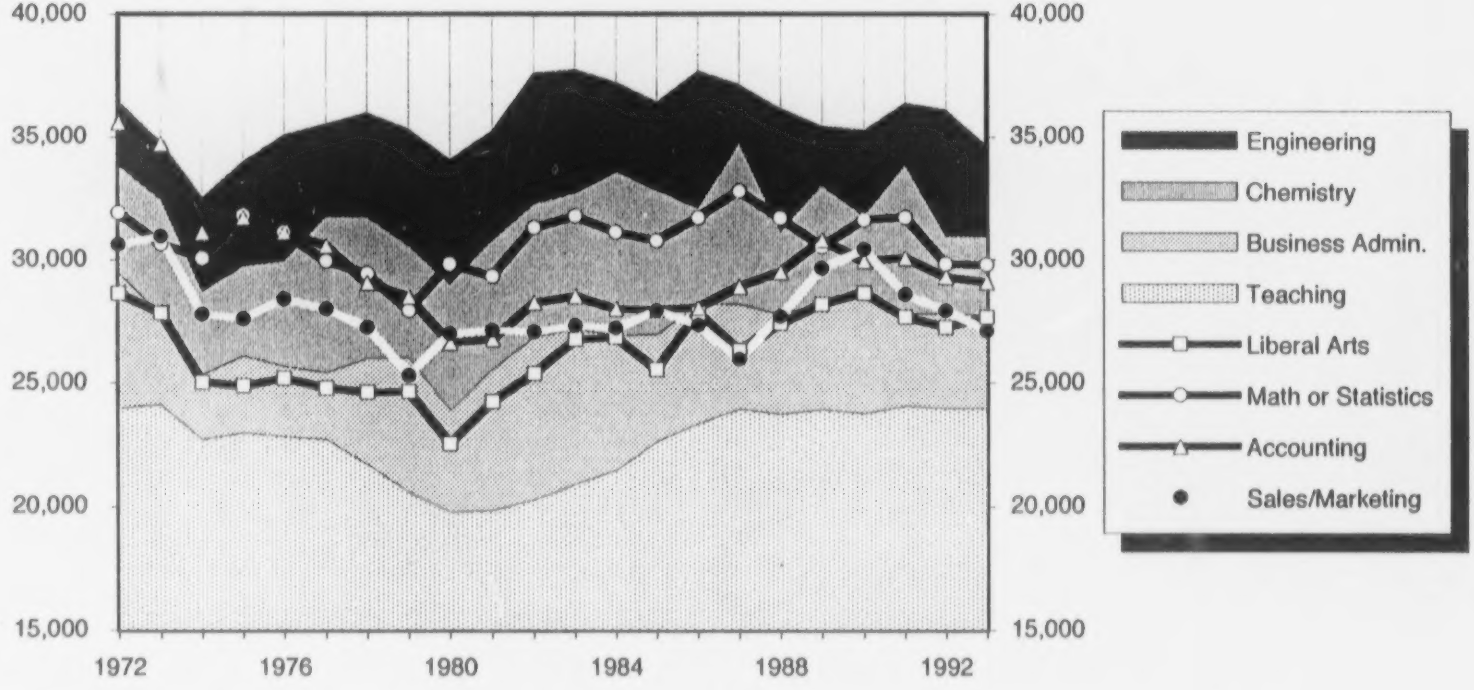


TABLE III-3

FIRST-YEAR TEACHERS AND ANTICIPATED TEACHER RETIREMENT BY STATE

	Teachers		First Year Teachers (Percent of Teachers)		Anticipated Retirement (Percent of Teachers)	
State	1987-88	1990-91	1987-88	1990-91	1987-88	1990-91
Alabama	38,677	40,633	4.26	3.05	0.30	1.93
Alaska	6,911	6,575	5.02	5.64	0.00	0.60
Arizona	29,858	30,596	4.53	4.88	1.29	0.74
Arkansas	27,543	26,953	4.42	4.89	0.59	0.76
California	183,783	204,103	4.99	4.81	1.55	1.88
Colorado	31,754	34,837	4.22	4.71	0.32	0.94
Connecticut	34,137	35,577	2.12	2.26	0.72	1.53
Delaware	5,336	5,978	3.00	0.90	0.93	5.88
D.C.	5,198	6,181	4.91	0.53	2.84	0.70
Florida	89,562	101,417	5.37	5.78	0.65	0.64
Georgia	62,897	65,697	5.44	4.28	0.79	0.98
Hawaii	8,691	10,035	7.46	5.38	0.77	0.46
Idaho	10,804	11,383	6.65	6.14	0.73	1.73
Illinois	102,000	120,076	3.09	3.60	1.38	1.35
Indiana	55,972	56,672	4.10	3.13	0.88	0.94
Iowa	40,991	36,028	3.87	2.82	0.93	2.13
Kansas	30,206	33,154	4.31	3.71	0.56	0.71
Kentucky	36,830	38,546	3.69	2.56	0.88	0.81
Louisiana	39,387	44,491	4.19	4.58	0.57	1.13
Maine	15,330	16,494	5.44	4.14	0.86	0.68
Maryland	38,557	38,899	4.38	4.93	0.35	0.60
Massachusetts	62,021	63,291	3.99	0.89	0.49	1.03
Michigan	81,516	82,674	3.61	1.14	1.72	0.68
Minnesota	43,683	47,024	2.70	2.35	0.39	1.03
Mississippi	28,740	28,351	4.16	3.46	0.26	0.81
Missouri	53,426	54,304	3.20	4.69	1.26	1.43
Montana	13,418	10,880	4.72	4.11	1.17	0.46
Nebraska	22,705	19,609	4.44	3.80	0.82	1.39
Nevada	8,631	9,848	3.45	7.76	1.25	0.91
New Hampshire	10,770	11,045	4.83	4.34	0.20	0.68
New Jersey	82,345	91,981	3.74	1.83	0.66	0.71
New Mexico	15,430	17,200	5.46	4.59	1.35	1.22
New York	174,828	171,559	4.12	2.41	0.89	1.53
North Carolina	58,237	67,718	3.59	4.23	1.13	0.60
North Dakota	9,031	8,638	4.53	3.16	1.10	0.58
Ohio	103,357	106,540	3.93	2.63	1.09	0.91
Oklahoma	40,989	37,562	2.97	5.33	0.99	1.48
Oregon	25,422	26,864	4.82	3.60	1.33	1.48
Pennsylvania	100,454	112,062	2.63	2.92	0.69	1.63
Rhode Island	8,886	11,025	3.85	3.74	1.17	0.44
South Carolina	36,069	39,296	5.34	3.74	0.80	0.79
South Dakota	10,434	10,717	5.18	5.45	0.85	0.45
Tennessee	43,746	45,026	4.32	1.93	0.77	1.43
Texas	183,444	203,561	5.46	5.93	0.53	0.88
Utah	16,385	18,280	9.65	5.37	0.23	1.33
Vermont	6,935	7,414	4.82	2.14	0.36	0.68
Virginia	60,435	62,317	3.97	3.29	1.31	0.85
Washington	39,402	44,872	5.34	5.85	0.44	0.73
West Virginia	22,943	23,247	3.46	1.87	1.36	0.00
Wisconsin	57,458	58,507	3.24	3.47	0.56	0.50
Wyoming	7,644	7,559	4.21	4.26	1.23	1.05
Total/Average	2,310,273	2,559,488	4.42	3.78	0.87	1.07

TABLE III–4

PRIOR–YEAR ACTIVITY OF PUBLIC SCHOOL TEACHERS BY STATE, 1990–91

		Teaching				Reserve Pool		
State	Univ., or College Student	Same School	Same District	Another District	Private School	Substi–tute	Education But Not Teaching	Reentry and Other*
Alabama	2.45	87.41	5.04	2.62	0.56	0.16	0.68	1.07
Alaska	3.34	76.95	6.26	5.61	0.16	2.50	2.35	2.83
Arizona	2.32	86.76	4.22	2.76	0.48	1.57	0.70	1.19
Arkansas	2.05	87.44	3.52	3.60	0.39	0.33	0.55	2.12
California	2.62	85.21	4.49	2.71	1.03	1.17	0.28	2.50
Colorado	2.48	83.75	4.99	3.48	0.31	2.36	0.47	2.17
Connecticut	1.62	90.01	4.52	1.24	0.46	0.46	0.47	1.23
Delaware	0.00	93.62	2.69	2.79	0.43	0.40	0.00	0.08
D.C.	0.00	88.35	9.53	0.69	0.55	0.00	0.00	0.88
Florida	2.10	84.71	5.63	0.64	0.93	1.90	0.67	3.42
Georgia	1.86	84.49	4.93	3.36	0.80	0.84	0.58	3.13
Hawaii	3.97	83.19	6.61	1.63	0.75	1.19	1.46	1.21
Idaho	4.30	80.47	4.54	3.87	0.40	2.05	1.20	3.17
Illinois	1.93	87.66	5.52	1.51	0.53	0.71	0.52	1.63
Indiana	1.33	89.21	4.42	1.31	0.09	0.86	0.68	2.10
Iowa	1.77	87.86	4.39	2.94	0.25	1.03	0.88	0.87
Kansas	1.60	84.55	5.03	3.56	0.32	1.71	1.15	2.07
Kentucky	1.57	88.55	5.18	0.78	0.83	1.11	0.47	1.50
Louisiana	2.04	84.79	5.62	2.89	0.76	0.55	0.56	2.79
Maine	2.60	85.99	4.38	3.06	0.17	0.94	0.73	2.14
Maryland	2.91	86.72	5.17	1.19	0.68	0.68	0.71	1.94
Massachusetts	0.52	90.82	5.57	0.46	0.27	0.37	0.22	1.77
Michigan	0.69	86.76	8.46	1.55	0.25	0.95	0.39	0.93
Minnesota	1.17	88.05	6.01	1.82	0.15	1.01	0.21	1.58
Mississippi	2.33	88.39	3.72	2.31	0.12	0.32	0.23	2.58
Missouri	2.50	87.19	4.20	3.39	0.12	1.18	0.29	1.15
Montana	1.95	86.06	3.66	4.17	0.32	1.03	0.89	1.93
Nebraska	2.48	86.54	3.99	2.09	0.44	1.91	0.46	2.10
Nevada	3.23	79.68	6.13	3.65	0.28	2.26	0.27	4.51
New Hampshire	1.85	87.70	3.96	2.35	0.19	0.69	1.32	1.94
New Jersey	1.02	89.28	4.82	1.19	1.09	0.26	0.52	1.81
New Mexico	3.20	81.40	6.35	4.41	0.00	1.27	0.62	2.74
New York	1.68	89.35	3.67	1.29	0.12	1.00	1.15	1.74
North Carolina	3.28	85.34	5.51	2.44	0.27	0.51	0.69	1.96
North Dakota	2.26	86.16	4.31	3.46	0.35	1.24	0.25	1.97
Ohio	1.34	88.96	4.57	1.36	0.56	1.20	0.43	1.58
Oklahoma	4.23	82.43	4.42	4.80	0.00	1.35	0.92	1.85
Oregon	1.70	86.09	3.75	3.37	0.42	2.14	0.62	1.92
Pennsylvania	1.31	88.21	5.65	1.53	0.09	1.52	0.45	1.24
Rhode Island	1.51	82.88	6.81	0.83	1.85	3.08	0.58	2.45
South Carolina	2.17	85.22	6.21	3.40	0.10	0.38	0.62	1.90
South Dakota	3.42	83.86	3.87	3.67	0.64	0.78	0.64	3.13
Tennessee	0.70	87.40	5.78	3.29	0.22	0.72	0.52	1.37
Texas	3.64	80.91	5.76	5.11	0.38	0.99	0.97	2.24
Utah	3.68	86.17	4.35	2.37	0.02	1.42	0.08	1.92
Vermont	2.10	86.81	3.31	2.77	0.78	0.45	0.91	2.86
Virginia	1.99	82.59	8.02	2.46	0.53	1.35	0.73	2.34
Washington	2.48	82.62	6.75	3.39	0.60	1.91	0.68	1.57
West Virginia	1.30	89.04	6.36	0.76	0.02	1.57	0.51	0.44
Wisconsin	2.10	87.61	3.87	1.80	0.33	2.09	0.56	1.66
Wyoming	0.38	86.08	3.05	3.33	0.60	1.33	0.92	4.31
Average	2.10	86.24	5.17	2.39	0.46	1.09	0.62	1.93

*Includes preschool and postsecondary teaching, family care, unemployment, retirement, and non-education jobs.

IV. International Comparison of Teacher Salaries and Conditions of Employment

Recent commentary on American education has focused on what we can learn from our international competitors that will help improve our system of education. At first, these comparisons tended to be simplistic, but more recent reports have begun to illuminate the nuances of difference between education in the United States and other advanced industrialized nations by looking at how the conditions in which teachers teach and students learn influence their success. Inevitably, the discussion turns to teacher salaries. Teacher salaries and working conditions exert a strong influence on an educational system. Salaries are the single largest component of educational costs in any nation, and they affect teacher recruitment, retention, and quality. Good teacher working conditions can make a vital contribution to educational success, and poor working conditions create nearly insurmountable obstacles to student learning.

This section summarizes the findings of the 127 page AFT study, *How U.S. Teachers Measure Up Internationally, A Comparative Study of Teacher Pay, Training, and Conditions of Service*, published in July 1993. This study was based on previous studies of teacher pay and working conditions, as well as national salary schedules or statistical salary data obtained by the AFT through foreign embassies here, U.S. embassies abroad, teacher unions in foreign countries, and foreign government education agencies responsible for collecting or distributing data. Data from 19 of the most economically advanced countries are included; information on every measure was not available from every country.

Class Size. U.S. primary teachers have smaller classes than teachers in Japan, Spain, and Ireland, but their classes are similar in size to those in England and The Netherlands (see Table IV-1). Teachers in other nations studied have smaller classes. While Japanese teachers have larger classes, they also spend less time in the classroom than do their American counterparts. A considerable amount of their workweek is devoted to planning and preparation for teaching. Most European teachers also spend less time in the classroom and more time preparing for teaching.

The U.S. has an average primary class size of 24, but a pupil-teacher ratio of 19.3 (the pupil-teacher ratio is the sum of all students divided by the sum of all teachers, and differs from class size due to variations in teaching loads, teaching assignments, the number of classes per student, and other factors). Japanese primary teachers have classes of about 30 students, but since students take about six classes and teachers teach about four classes, the pupil-teacher ratio of 21.6 is only two students larger than the U.S. figure of 19.3.

For nations with data at the secondary level, U.S. class size appears average. But U.S. teachers teach more classes and, therefore, more students per day. Class size is larger in Japan, Finland, Spain, Austria, and France at the upper secondary level, but teachers in each of these nations teach fewer classes than in the U.S. Japan, Germany, and The Netherlands have larger classes at the lower secondary level.

Workweek and Work Year. U.S. primary teachers spend more time with students than teachers in any other nation studied (see Table IV-2). Excluding duty-free lunch-time and preparation periods, U.S. primary teachers spend over 30 hours per week in contact with children. Japanese teachers spend only 17-20 hours a week in front of students, and German teachers spend 21 hours a week in instruction. Along with England, Scotland, Ireland, and The Netherlands, U.S. secondary teachers have the largest number of instructional hours per week--approximately five classes a day for five days. U.S. secondary teachers easily have the highest number of required work hours per week in all activities.

Teachers in the U.S. work an average of 185 days compared to an international average of 190 to 195 days. All of the nations with more than 200 school days per year teach on Saturday mornings rather than teaching more weeks of the year. None of these nations, however, requires teachers to teach more hours per week (including Saturday hours) than U.S. teachers. Every nation studied has between 12 and 15 weeks of vacation or "holidays" (counting fall, spring and winter breaks), except Italy, which has 17 weeks.

Training. European nations tend to require more years of training for their secondary teachers compared to both U.S. secondary teachers and their own primary teachers. Training periods for primary teachers have recently been lengthened in such nations as Finland, France, and Sweden. Teachers in the U.S., Canada, Japan, Australia, and the United Kingdom receive similar teacher training as measured by years of training and level of training. Primary teachers in these nations have about the same number of years of training as secondary teachers. Consult *How U.S. Teachers Measure Up Internationally* for more specific information on teacher training.

Measuring Teacher Pay. Teacher salaries are measured in two ways: 1) the power of teacher salaries to purchase goods and services measured by converting salaries to U.S. dollars (see Figure IV-1) using purchasing power parities (PPPs), and 2) the power to attract individuals to become teachers as measured by the ratio of teacher salaries to gross domestic product (GDP) per capita (see Figure IV-2).

PPPs are used to convert currency into units of general purchasing power (i.e., power to purchase food, clothing, housing, transportation, etc.). Teacher salaries converted using PPPs represent the sacrifice of other goods and services (the market basket of goods and services reflective of the economy as a whole) that a country gives up to support a teacher. In other words, teacher salaries expressed in U.S. dollars indicate *the cost of teachers relative to the general market basket of goods*.

Salary dollars equated to U.S. dollars using PPPs do not represent units of education purchasing power (i.e., the power to purchase teachers, textbooks, etc.). Schools must compete against other employers, occupations, and sectors of the economy to secure candidates for teaching who have suitable training and skills. To argue that U.S. teachers have a high standard of living compared to teachers in other countries does not mean that they are overpaid, well paid, or even adequately paid. That judgment can be made only by comparing teacher salaries to those of other workers in the economy, that is, *the cost of teachers relative to the general price of labor*. Low teacher pay relative to other workers makes it difficult to find a sufficient pool of well-qualified candidates for the teaching profession. The salary comparison presented in this section shows that U.S. primary teachers have above average incomes relative to a general market basket of goods, but low incomes relative to the general standard of living. The somewhat higher ranking for the U.S. when comparing teacher pay in dollars (using PPPs for currency conversion) is primarily a product of the generally higher price of labor in the U.S. economy and the higher U.S. standard of living, rather than representing a huge investment in real teacher resources.

Primary Teacher Salaries. Although the salaries of primary teachers are higher in the U.S. than most other countries in absolute terms (U.S. dollars), they are just below average measured relative to national standards of living (per capita GDP) as shown in Table IV-3 and illustrated in Figures IV-1 and IV-2. At the mid-career level (about 15 years of teaching experience), the ratio of U.S. teacher pay to per capita GDP is about average, with seven countries having lower ratios and nine having higher ratios. At the maximum salary level, the ratio of U.S. teacher pay to per capita GDP ranks only above Italy, Norway, Sweden, and Denmark, among the 19 nations studied.

At mid-career, only Canada, Japan, and Switzerland pay more than the U.S. when purchasing power parities (PPPs) are used to convert currencies. These nations have the highest standard of living in the world as measured by gross domestic product per capita (Japan ranks fifth, Canada ranks third, and Switzerland ranks second). Japanese primary teachers earning the maximum salary enjoy a $5,000 advantage over U.S. teachers, Toronto's teachers have a $10,000 advantage, and Zurich's teachers have an $18,000 advantage.

Secondary Teacher Salaries. By international standards, American high school teachers are less trained and less well paid than in other countries. American high school teachers, particularly the most senior ones, are paid significantly less in absolute terms (U.S. dollars) and much less in relative terms (the salary to per capita GDP ratio) as shown Table IV-V and illustrated in Figures IV-1 and IV-2. American high school teachers need at least a four-year college degree to practice

Map 6

International Teacher Salary Comparison

(Based On Ratio of Teacher Salary To Per Capita GDP)

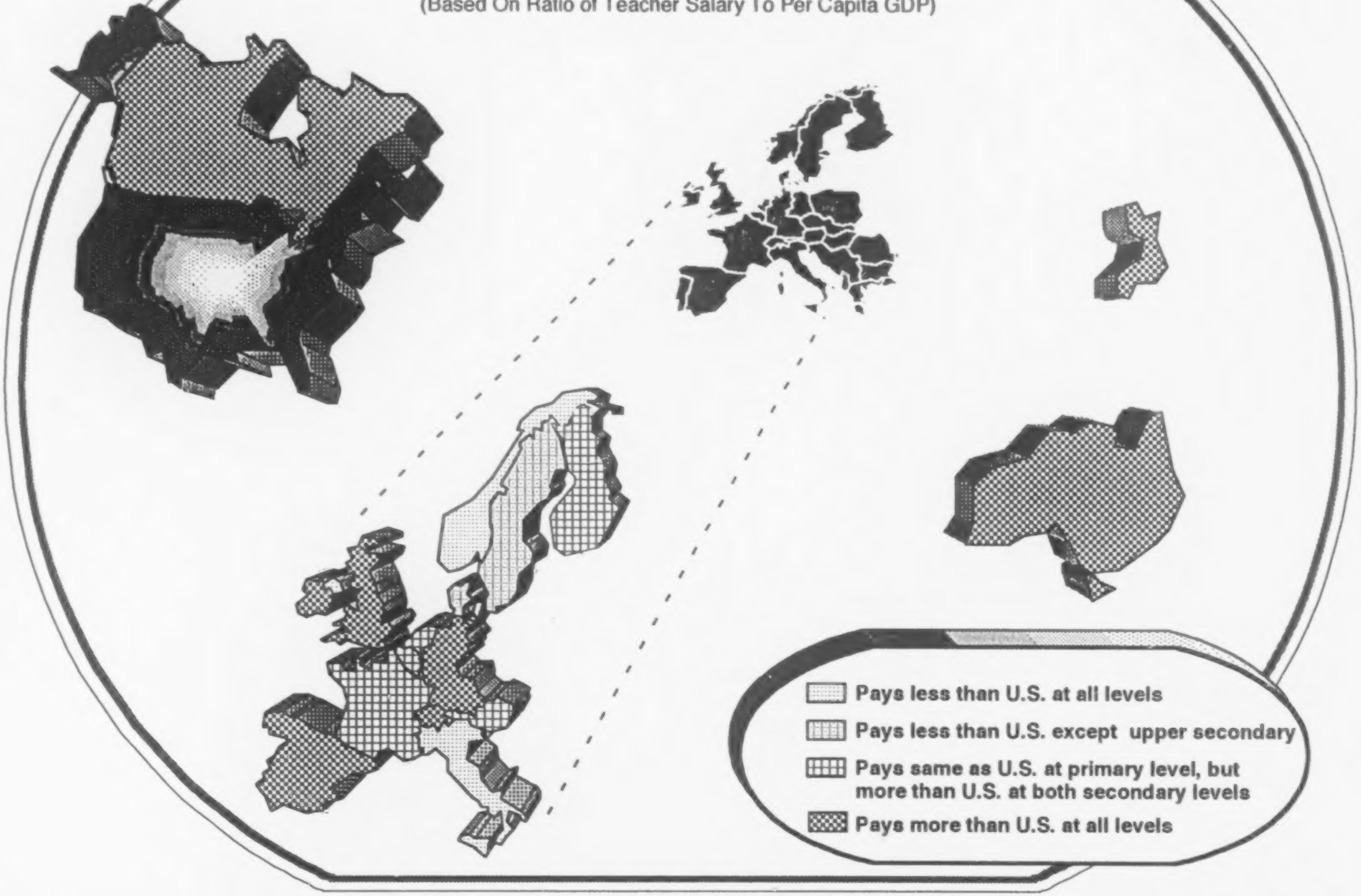

▤ Pays less than U.S. at all levels
▥ Pays less than U.S. except upper secondary
▦ Pays same as U.S. at primary level, but more than U.S. at both secondary levels
▩ Pays more than U.S. at all levels

Figure IV-1 -- Power of Teacher Salaries to Purchase Goods and Services in 1992
(Converted to U.S. Dollars Using PPPs)

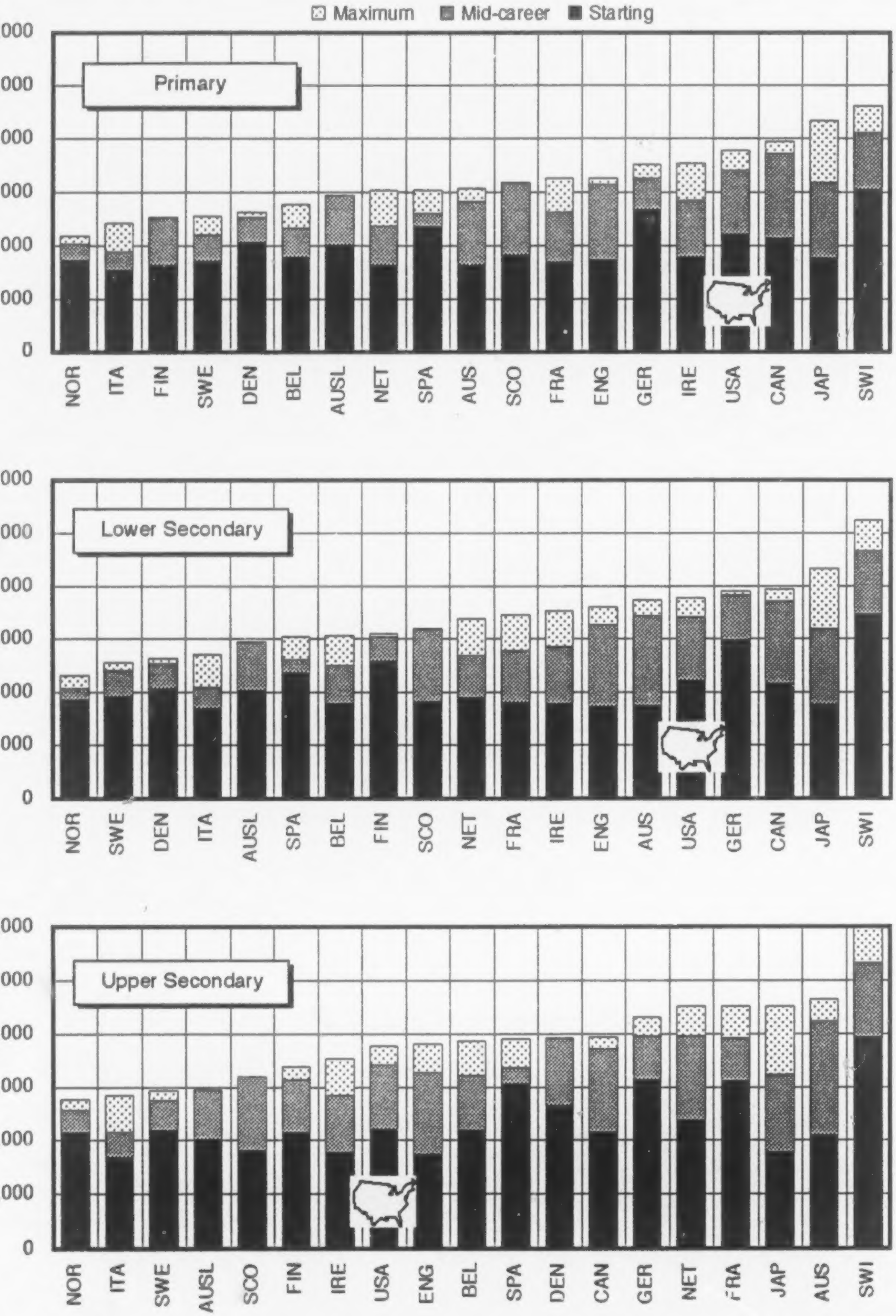
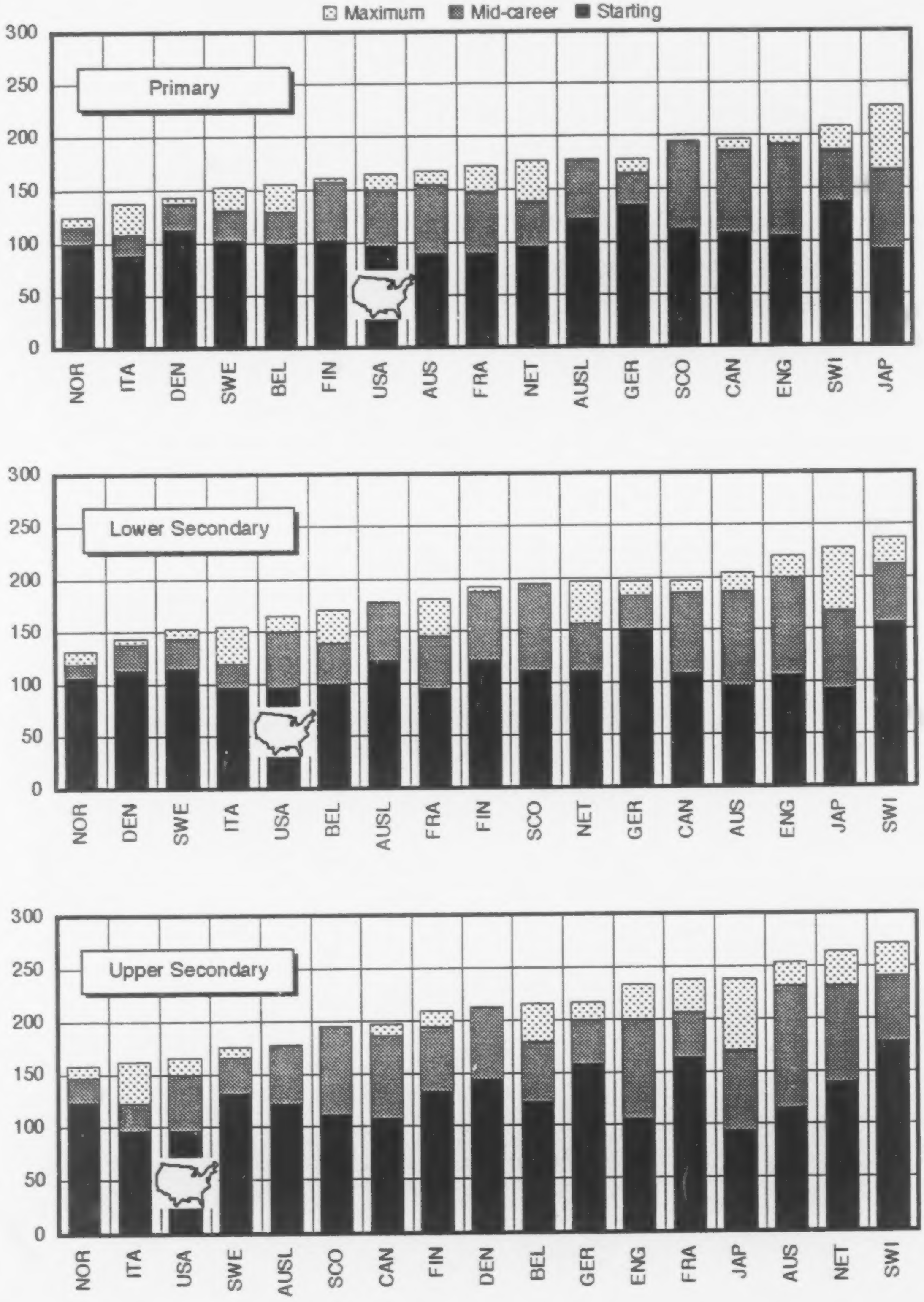


Figure IV-2 -- Power of Teacher Salaries to Attract Individuals To The Profession
Ratio of Teacher Salary to Per Capita GDP
(100 = Per Capita GDP)



their profession, but most European countries generally expect their high school teachers to have five or six years of training. European upper secondary teachers are considered to belong to a different, more highly paid and highly trained occupation than primary teachers.

Mid-career upper secondary teachers in Austria, Germany, Denmark, France, The Netherlands and, of course, Switzerland and Canada enjoy higher standards of living. Senior teachers in Belgium, Japan, and Spain also do better than their U.S. counterparts. While senior U.S. upper secondary teachers earn about $38,000 in a nation with the world's highest per capita income, senior Austrian teachers (magister) get $46,000; senior French teachers (agrégé) get $45,000; senior German teachers earn $43,000; senior Japanese teachers get $45,000; senior teachers in Ottawa, Canada earn $47,000; and senior teachers in Zurich, Switzerland earn $70,000.

At both mid-career and maximum salary levels, only Norway and Italy have lower ratios of teacher pay to per capita GDP than the U.S., among the 19 nations in the study. While senior U.S. high school teachers make 65 percent more than the per capita GDP, upper secondary teachers in 10 other nations earn at least double the per capita GDP. Senior teachers in Austria, The Netherlands, and Switzerland earn at least two and a half times the per capita GDP.

Teacher Salary Structures. Every nation studied based teacher pay on a lock-step schedule based primarily on years of experience, although France, Australia, and England offer a few pay flexibilities tied closely to the national salary schedule. In all nations studied, teacher experience figured prominently in the salary schedule, with years of postsecondary education or the grade level of students taught also frequently determining salary levels. The length of a typical U.S. salary schedule of 16 years is about average among the 19 nations studied. Australia, Canada, England, and Scotland have schedules of about 10 years in length. The Japanese salary schedule has 32 steps, while Italy and Spain provide for small continuous salary increments throughout a teacher's career. Most European nations have always paid primary teachers less than secondary teachers, but the trend is toward greater uniformity in the salary schedule and increasing training for primary teachers, as in Australia, Finland, France, and Sweden.

The variation in teacher salaries across America's more than 15,000 school districts dwarfs the variation found in other advanced industrialized countries and would be considered intolerable by international standards. Most countries have a national salary schedule, and those that do not--Australia, Canada, and Switzerland--show much more salary schedule conformity among their states, provinces, or cantons than does the U.S. among its states and school districts within states. Australia's eight states and territories have almost identical salary scales. High paying Ontario pays about one-third more than Quebec, the lowest paying province. Swiss high school teacher salaries vary by about $20,000 among cantons, but the lowest paying canton has salaries over $50,000. Salaries do not vary within Australian states or Swiss cantons, and vary only slightly within Canadian provinces. *How U.S. Teachers Measure Up Internationally* contains the national salary schedule or a statistical equivalent for each of the 19 nations.

Comparison of High School Teacher Salaries in U.S. States to International Salaries. The variation in U.S. teacher pay, as well as the low level of U.S. teacher pay is illustrated for high school teachers in Table IV-6. The right side of the table ranks U.S. states by average teacher salary. To enhance comparability, the average experience level of teachers in each state, averaging 16 years in the U.S., is recorded. The ratio of state average salary to state gross domestic product per capita is calculated where state GDP is the value of all goods and services produced within the borders of a state. The left side of Table IV-6 contains an international salary ranking for teachers at mid-career (about 15 years of experience), and the maximum salary. Several Australian states, Canadian provinces, and Swiss cantons are included in the analysis. Although listed in order by salary converted to U.S. dollars, the rank of the teacher salary to per capita GDP ratio is also listed.

At the mid-career level, Connecticut, the highest paying U.S. state, is eclipsed only by two Swiss cantons. At the other extreme, South Dakota, the lowest paying U.S. state, ranks behind every country except Italy. The U.S. dollar comparison, however, does not necessarily reflect how well teachers are paid. In the U.S., the cost of living varies substantially among the states. Furthermore, as argued earlier in this section, the teacher salary to per capita GDP ratio is a better way to judge the competitiveness of teacher salaries in attracting qualified candidates to teaching. By this measure, Connecticut's salary to GDP ratio of 1.66 ranks below every other nation, state, province or canton except Norway and Italy. Only seven U.S. states have a higher salary to per capita GDP ratio than Sweden, and Sweden pays better than only two other countries--Norway and Italy. Rhode Island, the highest paying state according to salary to per capita GDP ratio with a ratio of 2.08 ranks below the three Swiss cantons, Ottawa, Austria, Germany, The Netherlands, France, Denmark, Spain and England.

Table IV-1

Class Size and Pupil-Teacher Ratio

	Pupil-Teacher Ratio (a)					Class Size (b)		Average Class Size (c)	
	UNESCO Primary	OECD (d) Primary	OECD (d) S1/S2	AFT (d) All Levels		Maximum	Average	1985	1990
U.S.	21	***19.3	***15.2	18.4	P	none or	24.0	24	24.0
					S1	varies	26.8	27	26.8
					S2	locally	25.6	25	25.6
Canada	16	16.6	15.3	17.1	P	none or	20	16.6	* 15.6
					S1	varies	23		
					S2	locally	24		
Japan	21	21.5	18.2	20.7	P		30.3		
					S1		36.5		
Australia	19	18.2	12.7	15.7					
Austria	11	11.3	10.8	11.9	P	31	25		
					S1/S2	35	31		
Belgium	15		8.3	11.9					
Denmark	12	11.7	11.1	**12.2	S1	28	21	18.6	18.1
					S2	28			
England/Wales	20	21.4	16.5	16.5	P	None	25		
					S1/S2	None	16		
Finland	14			**15.6	P	25	20	21.9	20.7
					S1	32	28	21.9	20.7
					S2	36	32	28.5	28.2
France	14	17.0	13.4	17.7	P	30	23	21.5	22.4
					S1	30	24	26.3	28.8
					S2	40	29	29.9	31.5
Germany	18			19.1	P	30	23	27.9	21.6
					S1	35	28	28.4	26.6
					S2	25	22	28.4	26.6
Ireland	28	13.7	17.5	**15.6	P			32.1	31.0
Italy	12	12.8	9.2	**11.0	P	30	25		
Netherlands	17	19.1	20.0	18.7	P	32	25		
					S1	36	28		
					S2	36	24		
Norway	16		20.9	10.2	P	28	19		
					S1	30	24		
					S2	30	24		
Scotland					P/S1	33	20		
					S2	30	15		
Spain	28			**22.4	P/S1	40	30		
Sweden	na	11.1	11.5	12.4	P	25	21		
					S1	30	24		
					S2	30	24		
Switzerland	na			na	P	22	19		

Sources: (a) UNESCO Statistical Yearbook, 1991; OECD (1992); and Nelson (1991) for AFT data. (b) WCOPT (1988, 1991) and individual country reports; (c) International Labor Organization in WCOPT (1991) except U.S., Canada, and Japan. (d) Intended to represent FTE students and FTE teachers.

* Pupil-teacher ratio.

** No part-time teacher data; unable to estimate FTE teachers.

*** Public school data only (about 90 percent of teachers), from U.S. Department of Education (1992).

Table IV-2

Workweek and School Year for Teachers

		School Days			Estimated Weeks Of Work(b)	Weeks of Vacation				Estimated Hours/Week	
		Per Week	Per Year	Teacher Days		Total	Summer	All Other		Instruction	Total Required
U.S.		5	180	185	37.0	14.0	10	4	P	30.5	36.0
									S1	20.8	36.2
									S2	22.9	36.5
Canada		5	180-200	180-195	38.0	13.5	8	5.5	P	27.5	32.5
									S1	25.0	32.5
									S2	20.0	32.5
Japan		6	210-220		36.7	12-13				20	*25-29
										20	*30
										20	*32
Australia		5									
Austria		5-6	216	216	39.3	13.5	8	5.5		20-22	
Belgium		5	182		36.4				P	18-24	22-29
									S1	18-20	22-24
									S2	16-18	20-22
Denmark	P/S1	5	200	204	40.8	13.0	7	6	P/S1	20-21	25
	S2	5	203	199	39.8	12.0	7	5	S2	16-17	22-24
England/Wales		5	190	195	39.0	13.0	6	7	P	24-30	32
									S1/S2	20-24	32
Finland (a)		5	190	193	38.6	14.5	11	3.5	P	18	17-23
									S1	12-18	15-23
									S2	12-18	15-23
France (a)		5	175	176	35.2	14.0	6	8	P	27	29
									S1	21-23	
									S2	15-18	
Germany		5-6	225	225	40.9	13.5	6	7.5	P	21	25-30
									S1	20	27-28
									S2	18	24
Ireland	P/S1	5	180	184	36.8	16.0	10	6	P	25	28
	S2	5-6	200	200	36.4				S1/S2	18-22	28
Italy	P/S1	6	215	215	35.8	17.0	13	4	P	24	29
	S2	5							S1	18	23
									S2	18	23
Netherlands		5	195	190	38.0	15.0	7	8	P	27	40
									S1	24	29
									S2	24	29
Norway (a)		5	185	190	38.0	14.0	8	6	P	21	27
		*5	187	190	38.0				S1	17-20	22-26
									S2	13-18	17-24
Scotland		5	190	195	39.0	12.0	7	5	P	25	32.5
									S1/S2	23	32.5
Spain		5	165	190	38.0				P/S1	25	30
									S2	15-18	15-18
Sweden		5	178	191-194	38.4	15.0	10	5	P	20	26
									S1	16	24
									S2	14-19	24
Switzerland		5-6	200-240	200-240	40.0	12-16			P	25	25
		(varies between cantons)							S1	23	23
									S2	17-21	17-21

Sources: WCOPT (1986, 1991); Commission of the European Communities (1988); Neave (1988); NEA (1992); Nelson (1991); UNESCO (1992); OECD (1990); Kazuo (1988); and individual country reports.

* Applies to students; teacher workload may be less.

** Three days per week for teachers.

(a) No overtime work included. Salary data in other parts of this report include overtime pay.

(b) Estimates usually derived from workday data; may not match vacation data which come from WCOPT (1986).

Table IV-3

Primary Teacher Salaries Compared to the United States

		Teacher Salary U.S. Dollars (PPP Conversion)				Teacher Salary To Per Capita GDP Ratio			
	Years To Max.	PPP Rate	Starting	Mid-Career (~15 yrs.)	Maximum	Per Capita GDP	Starting	Mid-Career (~15 yrs.)	Maximum
United States(j)	16	1.00	22,171	34,213	37,771	22,868	97	150	165
Non-European									
Australia	10 c	1.36	20,279	29,544	29,544	16,566	122	178	178
Ontario (Toronto)(i)	11	1.29	24,522	45,940	48,550	20,027	122	229	242
Saskatchewan(i)	11	1.29	21,579	37,190	39,466	20,027	108	186	197
Quebec(i)	15	1.29	22,078	35,747	38,560	20,027	110	178	193
Japan (f)	32	0.19	17,743	31,880	43,325	19,026	93	168	228
British Isles									
England & Wales (d)	10	0.64	17,444	31,458	32,709	16,383	106	192	200
Ireland(n)	25	0.67	17,954	28,525	35,334	11,992	150	238	295
Scotland	13 c	0.64	18,286	31,934	31,934	16,383	112	195	195
Central Europe									
Austria (h)	17	14.20	16,514	28,414	30,729	18,332	90	155	168
Belgium (k)	27	39.19	17,919	23,335	27,850	17,910	100	130	156
France-Instituteur(l)	22	6.56	18,442	23,900	27,570	19,014	97	126	145
France-des Ecoles(l)	25-30	6.56	17,079	26,293	32,616	19,014	90	138	172
Grand Choix (30%)	20	6.56	17,079	28,086	32,616	19,014	90	148	172
Germany (a)	21	2.13	26,800	32,665	35,179	19,809	135	165	178
Italy	40	1.499	15,522	18,877	24,192	17,494	89	108	138
Netherlands (q)	26	2.16	16,482	23,742	30,342	17,134	96	139	177
Spain	43	0.116	23,696	26,097	30,509	13,125	181	199	232
Switzerland(r), Urban	24	2.26	30,583	41,194	46,149	22,091	138	186	209
Switzerland(r), Rural	27	2.26	25,220	34,129	39,547	22,091	114	154	179
Switzerland (Zurich)	25	2.26	33,070	45,376	56,188	22,091	150	205	254
Northern Europe									
Denmark (w)	19	9.30	20,800	25,381	26,387	18,383	113	138	144
Denmark (w)	19	9.30	19,432	24,502	25,754	18,383	106	133	140
Finland (u)	18	6.38	15,058	23,071	23,598	16,163	93	143	146
Finland (u)	18	6.38	16,576	25,464	25,974	16,163	103	158	161
Norway (v)	16	10.18	17,490	20,366	21,863	17,491	100	116	125
Sweden	23	8.44	17,175	22,066	25,578	16,695	103	132	153
Selected Non-OECD Nations									
Hong Kong (e)	16 *	7.75	18,108	35,017	36,766	Not Available			
Taiwan(s)	25 *	25.1	15,060	22,590	30,120	Not Available			
Taiwan-A Bonus	25 *	25.1	15,060	25,100	33,466	Not Available			
India (y)	21 *	16.2	1,453	2,087	2,134	Not Available			
Pakistan (x)	15 *	20.5	971	1,561	1,603	Not Available			

* Market exchange rates

Notes to Tables

a Includes supplement for married with one child. Monthly salary multiplied by 13.

c Top of basic schedule reached in 9 years ($38,950); higher salary limited to 30% of all classroom teachers.

d Incentive scale A (1,296) added to mid-career at all levels; B (2,097) added to maximum at primary level; C (4,194) added to maximum at lower secondary level; and D (5,595) added to maximum at upper secondary level.

e Base scale only; may not include important bonuses.

f Starting salary is Bachelors; mid and max is Masters. To account for bonuses and supplements, 64% is added to the primary base scale and 66% is added to the secondary base scale (see Barrow, 1986).

g Monthly salary multiplied by 12 with no supplements or overtime.

h Monthly salary multiplied by 14 plus supplements for Dienstzulagen group III multiplied by four.

i Starting salary is 4-year degree; mid-career is a 5-year degree. Categories refer to starting, mid-career and maximum salary assumptions.

j Primary and secondary teachers are paid the same except for small demographic differences in education and experience. The average teacher in the U.S. has a Master's Degree. The maximum salary usually requires a Ph.D. (earned by about 1% of teachers).

k Includes housing, holiday bonus (27,009 + 1%) and year-end bonus (8,955 + 2.5%).

l Includes housing stipend of $1,100/mo. for instituteurs; and average allowances and overtime payments of 7.8% for instituteurs, 5.6% for prof. des ecoles, 14.4% for prof. certifies, and 21.1% for prof. agrege.

m About 30% advance on very fast track (20 years), and about 50% on the fast track (25 years). Instituteurs average 22 years to the top. Promotions to extra class vary in length.

n Mid-career teacher includes Master's degree (867), and H. Dip. In Ed. (209); 1st or 2nd honors is about $1,500 more.

o Mid and max salary applied to "senior teachers" or "assistant principal teachers"--levels reached no sooner than 13 years.

p AFT estimate based on recent IFFTU (1991) study.

q Includes 8% holiday allowance. Teachers shift scales as they gain experience.

r Each of 26 cantons have own salary schedule. BS is typical urban; GL is low paying rural. Mid-career salaries evaluated at 12 years. Figures include allowances for a family with one child.

s "A" bonus is limited to fixed percentage of teachers in each school.

u Includes estimated overtime (primary-13%, lower secondary-18%, secondary-22%).

v Includes fixed overtime (primary-2%, lower secondary-4%, secondary-16%), but not variable overtime.

w Average supplements of 5,743 included.

x Includes main city pay bonus of 40% of starting salary.

y Includes compensatory allowance (45-100/month) and house rent allowance (260-600/month for large cities.

Note: All figures in footnotes refer to national currency, not U.S. dollars.

Table IV–4

Lower Secondary Teacher Salaries Compared to the United States

	Years To Max.	Teacher Salary U.S. Dollars (PPP Conversion) PPP Rate	Starting	Mid-Career (~15 yrs.)	Maximum	Teacher Salary To Per Capita GDP Ratio Per Capita GDP	Starting	Mid-Career (~15 yrs.)	Maximum
United States(j)	16	1.00	22,171	34,213	37,771	22,868	97	150	165
Non-European									
Australia	10 c	1.36	20,279	29,544	29,544	16,566	122	178	178
Ontario (Toronto)(i)	11	1.29	39,225	46,375	46,967	20,027	196	232	235
Saskatchewan(i)	11	1.29	21,579	37,190	39,466	20,027	108	186	197
Quebec(i)	15	1.29	22,078	35,747	38,560	20,027	110	178	193
Japan (f)	32	0.19	17,743	31,880	43,325	19,026	93	168	228
British Isles									
England & Wales (d)	10	0.64	17,444	32,709	35,986	16,383	106	200	220
Ireland(n)	25	0.67	17,954	28,525	35,334	11,992	150	238	295
Scotland	13 c	0.64	18,286	31,934	31,934	16,383	112	195	195
Central Europe									
Austria (h)	17	14.20	17,593	34,334	37,401	18,332	96	187	204
Belgium (k)	27	39.16	17,973	24,928	30,541	17,910	100	139	171
France-des Ecoles(l)	25-30	6.56	18,058	27,799	34,485	19,014	95	146	181
Grand Choix (30%)	20	6.56	18,058	29,695	34,485	19,014	95	156	181
Germany(a)	21	2.13	29,943	36,278	38,994	19,809	151	183	197
Italy	40	1.499	16,963	20,886	27,066	17,494	97	119	155
Netherlands (q)	23	2.16	19,050	26,958	33,762	17,134	111	157	197
Spain	43	0.116	23,696	26,097	30,509	13,125	181	199	232
Switzerland(r), Urban	24	2.26	34,643	46,776	52,391	22,091	157	212	237
Switzerland(r), Rural	27	2.26	30,455	41,300	47,896	22,091	138	187	217
Switzerland (Zurich)	22	2.26	38,537	49,900	60,046	22,091	174	226	272
Northern Europe									
Denmark (w)	19	9.30	20,800	25,381	26,387	18,383	113	138	144
Denmark (w)	19	9.30	19,432	24,502	25,754	18,383	106	133	140
Finland (u)	18	6.38	19,764	30,366	30,974	16,163	122	188	192
Norway (v)	16	10.18	18,599	20,764	23,059	17,491	106	119	132
Sweden	20	8.44	19,139	23,996	25,578	16,695	115	144	153
Selected Non-OECD Nations									
Hong Kong (e)	23 *	7.75	20,973	40,289	57,786	Not Available			
Taiwan(s)	25 *	25.1	15,060	22,590	30,120	Not Available			
Taiwan-A Bonus	25 *	25.1	15,060	25,100	33,466	Not Available			
India (y)	25 *	16.2	1,864	2,808	2,916	Not Available			
Pakistan (x)	15 *	20.5	1,254	2,229	2,299	Not Available			

* Market exchange rates

Table IV-5

Upper Secondary Teacher Salaries Compared to the United States

		Teacher Salary U.S. Dollars (PPP Conversion)				Teacher Salary To Per Capita GDP Ratio			
		PPP Rate	Starting	Mid-Career (~15 yrs.)	Maximum	Per Capita GDP	Starting	Mid-Career (~15 yrs.)	Maximum
United States(j)	16	1.00	22,171	34,213	37,771	22,868	97	150	165
Non-European									
Australia	10 c	1.36	20,279	29,544	29,544	16,566	122	178	178
Ontario (Toronto)(i)	11	1.29	39,225	46,375	46,967	20,027	196	232	235
Saskatchewan(i)	11	1.29	21,579	37,190	39,466	20,027	108	186	197
Quebec(i)	15	1.29	22,078	35,747	38,560	20,027	110	178	193
Japan (f)	32	0.19	17,958	32,277	45,251	19,026	94	170	238
British Isles									
England & Wales (d)	10	0.64	17,444	32,709	38,175	16,383	106	200	233
Ireland(n)	25	0.67	17,954	28,525	35,334	11,992	150	238	295
Scotland	13 o	0.64	18,286	31,934	31,934	16,383	112	195	195
Central Europe									
Austria (h)	17	14.20	20,995	42,424	46,512	18,332	115	231	254
Belgium (k)	25	39.16	22,007	32,070	38,688	17,910	123	179	216
France-des Ecoles(l)	25-30	6.56	17,537	26,997	33,491	19,014	92	142	176
Grand Choix (30%)	20	6.56	17,537	28,839	33,491	19,014	92	152	176
Extra Class	m	6.56	0	30,320	37,376	19,014		159	197
France-Agrege(l)	25-30	6.56	31,275	39,233	45,183	19,014	164	206	238
Germany(a)	21	2.13	31,340	39,555	43,071	19,809	158	200	217
Italy	40	1.499	16,963	21,566	28,387	17,494	97	123	162
Netherlands (q)	21	2.16	23,742	39,552	45,168	17,134	139	231	264
Spain	43	0.116	27,677	30,501	36,079	13,125	211	232	275
Spain	43	0.116	30,691	33,687	39,093	13,125	234	257	298
Switzerland(r), Urban	24	2.26	39,370	53,305	59,843	22,091	178	241	271
Switzerland(r), Rural	22	2.26	37,783	48,409	53,905	22,091	171	219	244
Switzerland (Zurich)	20	2.26	45,716	60,512	70,154	22,091	207	274	318
Northern Europe									
Denmark (p)	14 *	9.30	26,525	39,213	39,213	18,383	144	213	213
Finland (u)	18 *	6.38	21,561	31,396	33,787	16,163	133	194	209
Norway (v)	16 *	10.18	21,665	25,720	27,653	17,491	124	147	158
Sweden	20 *	8.44	22,009	27,596	29,416	16,695	132	165	176
Selected Non-OECD Nations									
Hong Kong (e)	23	7.75	20,973	40,289	57,786	Not Available			
Taiwan(s)	25	25.1	15,060	22,590	30,120	Not Available			
Taiwan-A Bonus	25	25.1	15,060	25,100	33,466	Not Available			
India (y)	21	16.2	2,123	3,273	3,727	Not Available			
Pakistan (x)	15	20.5	1,537	2,710	2,819	Not Available			

* Market exchange rates

TABLE IV–6

1991–92 STATE AVERAGE SALARIES IN THE U.S. COMPARED TO HIGH SCHOOL TEACHER TEACHER SALARIES IN OTHER NATIONS

		Salary In U.S.		Per Capita	Ratio To Per Capita GDP	
	Nation	Dollars	Years	GDP	Ratio	Rank
	Mid-Career Teacher (About 15 Years)					
1	Zurich	60,512	12	22,091	2.74	1
2	Swiss (Basel)	48,409	12	22,091	2.19	2
3	Swiss (Glarus)	48,153	12	22,091	2.18	3
4	Ottawa	46,375	11	20,027	2.32	4
5	Austria	42,424	15	18,332	2.31	5
6	Germany	39,555	15	19,809	2.00	6
7	Netherlands	39,552	15	17,134	2.31	7
8	France	39,233	15	19,014	2.06	8
9	Denmark	39,213	14	18,383	2.13	9
10	Saskatchewan	37,190	11	20,027	1.86	10
11	Quebec	35,747	15	20,027	1.78	11
12	Spain	33,687	15	13,125	2.57	12
13	England	32,709	10	16,383	2.00	13
14	Japan	32,277	15	19,026	1.70	14
15	Belgium	32,070	15	17,910	1.79	15
16	Scotland	31,934	13	16,383	1.95	16
17	Finland	31,396	15	16,163	1.94	17
18	New S. Wales	29,544	10	16,566	1.78	18
19	South Australia	28,790	8	16,566	1.74	19
20	Victoria	28,640	10	16,566	1.73	20
21	Ireland	28,525	15	11,922	2.39	21
22	Sweden	27,596	15	16,695	1.65	22
23	Norway	25,720	15	17,491	1.47	23
24	Italy	21,566	15	17,494	1.23	24
	Maximum Salary for Senior Teachers					
1	Zurich	70,154	20	22,091	3.18	1
2	Swiss (Basel)	53,905	24	22,091	2.44	6
3	Swiss (Glarus)	52,764	22	22,091	2.39	7
4	Ottawa	46,967	11	20,027	2.35	10
5	Austria	46,512	17	18,332	2.54	5
6	Japan	45,251	32	19,026	2.38	8
7	France	45,183	25	19,014	2.38	9
8	Netherlands	45,168	21	17,134	2.64	4
9	Germany	43,071	21	19,809	2.17	12
10	Saskatchewan	39,466	11	20,027	1.97	16
11	Denmark	39,213	14	18,383	2.13	14
12	Spain	39,093	43	13,125	2.98	2
13	Belgium	38,688	25	17,910	2.16	13
14	Quebec	38,560	15	20,027	1.93	18
15	England	38,175	10	16,383	2.33	11
16	Ireland	35,334	25	11,922	2.96	3
17	Finland	33,787	18	16,163	2.09	15
18	Scotland	31,934	13	16,383	1.95	17
19	South Australia	29,771	a	16,566	1.80	19
20	Victoria	29,544	a	16,566	1.78	20
21	New S. Wales	29,544	a	16,566	1.78	21
22	Sweden	29,416	20	16,695	1.76	22
23	Italy	28,387	40	17,494	1.62	23
24	Norway	27,653	15	17,491	1.58	24

a Based on quota

		Average		Per Capita	Ratio To Per Capita GDP	
	State	Salary	Years	GDP	Ratio	Rank
1	Connecticut	47,510	16	28,590	1.66	6
2	Alaska	43,800	13	39,683	1.10	50
3	New York	43,335	16	25,781	1.68	5
4	New Jersey	41,027	16	27,488	1.49	20
5	Michigan	40,700	17	20,999	1.94	2
6	California	40,425	16	24,911	1.62	11
7	D.C.	39,673	19	75,673	0.52	51
8	Rhode Island	39,367	18	18,958	2.08	1
9	Maryland	39,073	16	21,371	1.83	4
10	Pennsylvania	38,715	17	21,057	1.84	3
11	Massachusetts	37,256	16	25,339	1.47	25
12	Nevada	36,989	14	24,806	1.49	21
13	Illinois	36,528	16	24,389	1.50	19
14	Wisconsin	35,227	16	21,542	1.64	10
15	Washington	34,880	15	22,578	1.54	16
16	Delaware	34,548	16	24,292	1.42	31
17	Hawaii	34,488	17	27,205	1.27	44
18	Indiana	34,247	15	21,256	1.61	12
19	Oregon	34,101	14	20,578	1.66	7
	U.S. AVERAGE	34,027	16	22,868	1.49	
20	Minnesota	33,700	16	23,938	1.41	34
21	Vermont	33,200	14	21,352	1.55	15
22	Ohio	33,198	15	20,897	1.59	13
23	New Hampshire	33,170	13	22,742	1.46	27
24	Colorado	33,072	14	23,033	1.44	28
25	Virginia	32,243	14	23,054	1.40	35
26	Arizona	31,176	13	19,033	1.64	9
27	Florida	31,070	14	18,793	1.65	8
28	Kentucky	30,880	15	20,468	1.51	18
29	Wyoming	30,425	14	26,883	1.13	49
30	Maine	30,097	14	19,803	1.52	17
31	Texas	29,719	12	22,877	1.30	43
32	Georgia	29,539	13	21,699	1.36	37
33	North Carolina	29,334	14	21,579	1.36	38
34	Iowa	29,196	16	22,151	1.32	41
35	Kansas	29,101	14	22,169	1.31	42
36	Missouri	28,923	14	21,484	1.35	40
37	Tennessee	28,621	14	21,248	1.35	39
38	South Carolina	28,209	13	18,948	1.49	22
39	Montana	27,590	14	18,737	1.47	23
40	West Virginia	27,366	14	17,339	1.58	14
41	Nebraska	27,231	14	22,537	1.21	46
42	Arkansas	27,168	12	18,569	1.46	26
43	Alabama	26,954	14	18,956	1.42	32
44	Utah	26,524	12	18,671	1.42	33
45	Oklahoma	26,514	12	18,473	1.44	29
46	Louisiana	26,411	14	21,332	1.24	45
47	Idaho	26,345	13	18,522	1.42	30
48	New Mexico	26,244	14	18,914	1.39	36
49	North Dakota	24,495	13	21,577	1.14	48
50	Mississippi	24,368	14	16,572	1.47	24
51	South Dakota	23,291	13	19,426	1.20	47

APPENDIX B

Data Sources

All data come from the annual AFT Survey of State Departments of Education, except as noted below.

Table I-4

U.S. Department of Labor, Employment and Wages, Annual Averages 1991, November, 1992.

U.S. Department of Labor, Employment and Earnings, May, 1993. (Used to estimate private sector annual earnings for 1992)

Table I-5

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Table I-6

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Table I-7

U.S. Department of Education, National Center for Education Statistics, Unpublished data tabulations.

Table I-8A and Table I-8B

U.S. Department of Education, National Center for Education Statistics, 1990-91 Schools and Staffing Survey. Unpublished data tabulations from the National Data Resource Center.

Table I-9

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Table I-10

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Table II-1

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Table II-2

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Table II-5

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Table III-2

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Tables III-3 and III-4

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Tables IV-1 and IV-2

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